



Rocky Mountain
Remediation Services, L.L.C.
. . . protecting the environment

RF/RMRS-97-095.UN

**Close-Out Report
For The Building 980 Cluster**

Rocky Mountain Remediation Services, L. L. C.

October 1997

**CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER**

REVISION 0


OCTOBER 1997

This Close-Out Report has been reviewed and approved by:



Mark Hickman, Project Manager, RMRS

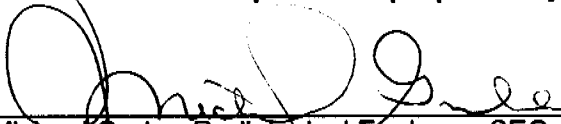
10/9/97
Date



Jeff Barros, Manager, Radiological Engineering, SSOC

10/9/97
Date

This Close-Out Report was prepared by:



Michael Grube, Radiological Engineer, SEG, CO

10/9/97
Date

CLOSE-OUT REPORT

TABLE OF CONTENTS

TABLE OF CONTENTS	i
1.0 PURPOSE	1
2.0 FACILITY HISTORY.....	1
3.0 RADIOLOGICAL AND HAZARDOUS MATERIAL ISSUES.....	1
3.1 RADIOLOGICAL CONTAMINATION IDENTIFICATION	1
3.2 RADIOLOGICAL CONCERNS.....	2
3.3 OTHER HAZARDOUS MATERIAL CONCERNS	2
4.0 SCOPE OF RADIOLOGICAL SURVEY.....	4
5.0 RADIOLOGICAL RELEASE CRITERIA	4
6.0 HAZARDOUS CONTAMINANT SAMPLING CRITERIA	4
7.0 RADIOLOGICAL SITE ASSESSMENT	4
7.1 SEVEN STEP DATA QUALITY OBJECTIVE PROCESS	4
8.0 RESPONSIBILITIES	14
8.1 PROJECT MANAGER	14
8.2 DECOMMISSIONING RADIOLOGICAL ENGINEER	14
8.3 RADIOLOGICAL ENGINEER	14
8.4 RADIOLOGICAL CONTROL TECHNICIANS.....	15
9.0 QUALITY ASSURANCE	15
9.1 RADIOLOGICAL SURVEY DOCUMENTATION	15
10.0 REPORTING SURVEY FINDINGS	15
11.0 WASTE DISPOSITION	15
12.0 UTILITY CONFIGURATION	16
12.1 ELECTRIC POWER.....	16
12.2 SANITARY SEWER	16
12.3 FIRE WATER	16

12.4	DOMESTIC WATER	16
12.5	NATURAL GAS.....	16
13.0	REFERENCES	16

APPENDICES

Appendix A—Summary Of Contamination Values For Unrestricted Release	A-1
Appendix B—Radiological Survey Instrumentation	B-1
Appendix C—Radiological Survey Data	C-1

TABLES

3-1	Building 980 Cluster Reconnaissance Level Characterization Report	3
-----	---	---

CLOSE-OUT REPORT FOR THE BUILDING 980 CLUSTER

1.0 PURPOSE

The purpose of the Close-Out Report (CR) is to document the post demolition configuration of the Building 980 Cluster. The report includes:

- The radiological survey results delineated in the Close-Out Radiological Survey Plan (CRSP).
- The data which demonstrates that residual radioactive material, existing in the Building 980 Cluster, is below levels that comply with established Rocky Flats Environmental Technology Site (RFETS) unrestricted release criteria identified in Appendix A (Appendix 1, 1-P73-HSP-18.10, "Radioactive Lateral Transfers and Unrestricted Release of Property and Waste").
- Description and disposition of hazardous material (asbestos, chemicals, and Polychlorinated Biphenyl [PCB] ballasts) removed from the facility prior to demolition.
- Description and disposition of construction debris and recycled material released.
- The final configuration of all utilities in the cluster.

2.0 FACILITY HISTORY

The Building 980 Cluster consisted of three metal skinned buildings located near the center of RFETS within the Protected Area. They were utilized as warehouses which contained construction equipment, building material, and supplies for on-site contractors.

Building 965 was approximately 625 square feet in area and functioned as a maintenance shop until 1996. In addition, it was utilized for various carpentry services and equipment repairs.

Building 968 was approximately 11,000 square feet in area and was used by the construction subcontractor for storage, warehousing, and support shop activities.

Building 980 was approximately 13,000 square feet in area and was previously used for storage, warehousing, and as a support shop for construction activities. Operations within the Building 980 included: sheet metal work, painting, iron work, asbestos abatement, carpentry, millwrighting, and motorpool operation. About 1/5 of the area was used as a radiological buffer area (RBA) for the storage of a radiologically contaminated pumping truck.

3.0 RADIOLOGICAL AND HAZARDOUS MATERIAL ISSUES

3.1 RADIOLOGICAL CONTAMINATION IDENTIFICATION

Based on the review of the historical records and process knowledge of the identified project's buildings/equipment/systems, there was minimal expectation that radioactive material would be present above unrestricted release levels in the building interiors except in one area. This area is located in the east end of Building 980 where a RBA and Contamination Area (CA) existed. Based on the reconnaissance level characterization radiological survey data, no radioactive material was detected above the unrestricted release criteria within the interiors of Buildings 965,

968 and 980. Based on the review of the historical records and process knowledge of the identified project's buildings/equipment/systems, there was an indication that radioactive material may have been present above unrestricted release levels on the building exteriors. The presence of radioactive material above the unrestricted release criteria was confirmed by the reconnaissance level characterization surveys of the Building 965, 968, and 980 exteriors. Elevated readings were predominately located on the north facing walls; however, survey results confirmed the presence of contamination on the exterior metal surfaces of the other walls and the roof.

3.2 RADIOLOGICAL CONCERNS

The Building 980 Cluster CR consists of a summary of the survey results for the interior of Buildings 965, 968, and 980. Final surveys of the exteriors of Buildings 965, 968, and 980 show that radioactive material above the unrestricted release criteria was present. The presence of Plutonium was verified initially by AP-2 alpha analysis on Buildings 965, 968, and 980 and later confirmed by radiochemistry analysis. A final survey was not completed on the exterior of Building 980 since the exterior surfaces were not decontaminated and were packaged as radioactive waste and released in a restricted manner. In an effort to minimize radioactive waste, the exterior surfaces of Buildings 965 and 968 were final surveyed. However, due to the magnitude of contamination on Building 965 and the potential for contamination to be masked by paint on Building 968, the decision was made to radwaste the exterior panels instead of performing decontamination.

3.3 OTHER HAZARDOUS MATERIAL CONCERNS

Hazardous contaminants as identified in the Reconnaissance Level Characterization Report (RLCR) are identified in Table 3-1. Additional hazardous materials identified during the deactivation of the Building 980 Cluster were removed and handled in accordance with established procedures.

Table 3-1 Building 980 Cluster RLCR

Building & Area	Process Information	Rad/Haz Concerns	Confirmation Analysis	Comments
980 East Wall	Transite	Asbestos	None Required	Assumed To Be >1% Acn
980 Water Lines	Mud Pipe Fitting Insulation	Asbestos	PLM for Asbestos	Tested Positive 4%
980 Safety Railings	Yellow Safety Paint	Lead	None Required	Known to Contain Lead
980 Fire Water Systems	Red Safety Paint	Lead	None Required	Known to Contain Lead
980 Brown Beam Paint	Brown Paint	Lead	None Required	Known to Contain Lead
980 Grey Paint	Grey Paint	Lead	None Required	Known to Contain Lead
980 North Exterior Wall	Exposed to Solar Ponds	Rad Contaminants	Rad Survey Joints	Rad Survey Results Above Detection Limits
980 East Section of Building	Contains Vacuum Truck in RBA	Rad Contaminants	Rad Survey Required	Rad Survey Results Above Detection Limits
980 Floor Paint	Grey Paint	PCBs	SW-846 Method for PCB solids	None Detected
968 Water Lines	Mud Pipe Fitting Insulation	Asbestos	PLM for Asbestos	Tested Positive 3%
968 Safety Railings	Yellow Safety Paint	Lead	None Required	Known to Contain Lead
968 Fire Water Systems	Red Safety Paint	Lead	None Required	Known to Contain Lead
968 Brown Beam Paint	Brown Paint	Lead	None Required	Known to Contain Lead
968 Grey Paint	Grey Paint	Lead	None Required	Known to Contain Lead
968 Tan Window Putty	Tan Putty from West Upper Window	Asbestos	PLM for Asbestos	Tested Positive .25% (PC)
968 Floor	Concrete	Rad Contaminants	Rad Survey	Rad Survey results below detection limits
968 Walls	Interior/Exterior	Rad Contaminants	Rad Survey	Rad Survey results below detection limits
965 Safety Railings	Yellow Safety Paint	Lead	None Required	Known to Contain Lead
965 Fire Water Systems	Red Safety Paint	Lead	None Required	Known to Contain Lead
965 Brown Beam Paint	Brown Paint	Lead	None Required	Known to Contain Lead
965 Grey Paint	Grey Paint	Lead	None Required	Known to Contain Lead
965 North Exterior Wall	Exposed to Solar Ponds	Rad Contaminants	Rad Survey Joints	Rad Survey Above Detection Limits
965 Floor	Interior/Exterior	Rad Contaminants	Rad Survey	Rad Survey Above Detection Limits
965, 968 & 980 Light Fixtures	Fluorescent Light Ballasts	PCBs	Visual inspection for PCB information	Known to contain PCBs prior to 1980

4.0 SCOPE OF RADIOLOGICAL SURVEY

The surveys for Buildings 965, 968, and 980 included all floors, interior wall surfaces, accessible exterior surfaces, fixed equipment, and support beams.

5.0 RADIOLOGICAL RELEASE CRITERIA

The unrestricted release criteria is presented in Appendix A. The survey methods and release criteria of Appendix A are in conformance with the following RFETS procedures:

1. 4-K62-ROI-03.01 *Performance of Surface Contamination Surveys*
2. 4-S23-ROI-03.02 *Radiological Requirements for Unrestricted Release*
3. 4-Q97-REP-1003 *Radiological Evaluation for Unrestricted Release of Property/Waste*
4. 1-P73-HSP-18.10 *Radioactive Material Transfer and Unrestricted Release of Property and Waste*

6.0 HAZARDOUS CONTAMINANT SAMPLING CRITERIA

Hazardous contaminant sampling is performed in accordance with the following references:

1. *Decommissioning Characterization Protocols*
2. *L-6294-A Sampling within an RBA/CA*
3. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods/U.S. Environmental Protection Agency (EPA) SW 846, 1986, Third Edition*

7.0 RADIOLOGICAL SITE ASSESSMENT

7.1 SEVEN STEP DATA QUALITY OBJECTIVE (DQO) PROCESS

The following seven step DQO process derived from EPA QA/G-4, *The Data Quality Objective Process* and the draft *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)*, and Manual (NUREG-1575) was utilized to develop the CRSP for the Building 980 Cluster. The CRSP was designed to identify the survey requirements which, when completed, would demonstrate compliance with the Appendix A release criteria. Much of the survey requirements were met by In-Process characterization surveys. Due to fairly uniform radioactive contamination, identified on the exterior and roof of Building 980, the building's exterior panels were removed and discarded as low-level radioactive waste. No CRSP survey requirements applied to the Building 980 exterior wall and roof panels. Radioactive contamination was also identified (to a lesser extent), on the exteriors of Buildings 968 and 965. The contaminated exterior panels and roof of Buildings 968 and 965 were also discarded as low-level radioactive waste, however, final surveys were completed on all exterior wall surfaces. The newly exposed beam surfaces of all three buildings were surveyed to ensure contamination from the panels did not migrate to the beams.

STEP 1

Why were these surveys performed?

The surveys were performed to assure that the Building 980 Cluster facilities' materials released contained no radioactive contamination above the unrestricted release criteria outlined in Appendix A. In addition, hazardous constituents were identified to ensure worker protection was adequately addressed.

What types and kind of sampling measurements were required?

The radiological surveys required to assure that the unrestricted release criteria was met are fixed and removable surveys for both gross alpha and gross beta contamination. These surveys were performed at distinct locations on Buildings 965, 968, and 980.

Since small areas of radioactive material could have been present between the fixed and removable surveys, scan surveys were also performed. These surveys were performed across a defined areas of Buildings 965, 968, and 980.

Sampling for lead and asbestos was in accordance with the Decommissioning Characterization Protocols.

Who needed the information?

The Department of Energy (DOE), EPA, Colorado Department of Public Health and Environment, Stakeholders, Kaiser-Hill Company, L. L. C., Safe Sites of Colorado, and Rocky Mountain Remediation Services, L. L. C. (RMRS) used the CRSP results to assure that the interior components of Buildings 965, 968, and 980 could be released in an unrestricted manner.

When was the information needed?

The survey results from the CRSP were needed before the dismantlement of Buildings 965, 968, and 980.

STEP 2

What decisions were made from this final survey information?

Structures and components of Buildings 965, 968, and 980 were released in an unrestricted manner when it was shown that the unrestricted release criteria was met.

The surveys showed that the exterior surfaces of Buildings 965, 968, and 980 did not meet the unrestricted release criteria, the area exceeding the criteria were removed and packaged as radioactive waste and released in a restricted manner.

Were there any alternatives to the decision?

There are no other alternatives for Buildings 965, 968, and 980. The Site Utilization Review Board and DOE management have made the decision that the Building 980 Cluster facilities were excess.

The alternative of decontaminating the exterior and roof panels of Buildings 965, 968, and 980 to meet the unrestricted release criteria was rejected due to cost and schedule constraints.

What is the end use of the equipment, facility, or structure (free release, restricted use, low-level waste, etc.)?

Structures and components within Buildings 965, 968, and 980 which have no radioactive material contamination above the unrestricted release criteria, was released in an unrestricted manner.

The exterior and roof panels of Buildings 965, 968, and 980 which contain radioactive material above the unrestricted release criteria was packaged as low level radioactive waste and released in a restricted manner.

Asbestos containing material (ACM) > 1% was removed and disposed of in accordance with Asbestos Hazard Emergency Response Act (AHERA) and State of Colorado regulations.

STEP 3

What information was required to make this decision?

The information required was the radiological survey data that supported the decision to release the remaining structures and components of Buildings 965, 968, and 980 in an unrestricted manner. The radiological surveys required was fixed and removable surveys for both gross alpha and gross beta contamination. These surveys were performed at distinct locations within Buildings 965, 968, and 980 (see Appendix C for a summary of the survey results).

Since small areas of radioactive material could have been present between the locations where fixed and removable surveys were taken, scan surveys were also be performed. These scan surveys were performed to increase the probability of finding radioactive material above the unrestricted release criteria. These scan surveys were performed across defined areas within Buildings 965, 968, and 980.

What source(s) were used to obtain the information?

The CRSP and reconnaissance level characterization surveys, in-process characterization, and final surveys.

Were the desired analyses performed at RFETS or was the analysis sent off-site?

All radiological survey data was obtained and recorded at Buildings 965, 968, and 980. This data was reviewed at RFETS. No samples were sent off-site for radiological analysis.

Samples for lead, asbestos, and PCBs were sent off-site to a contract laboratory.

What type of instrumentation was required?

The radiological instrumentation listed in Appendix B was used to perform all radiological surveys. The Minimum Detectable Amount (MDA) of the instruments used to perform the surveys required in this CRSP were a fraction of the unrestricted release criteria outlined in Appendix A. A goal was to have the MDA of the instruments at or below 50% of the unrestricted release criteria.

Was facility structural data been reviewed?

Structural data was not applicable to this CRSP since the building structure was not being modified.

What suspect materials were identified?

Plutonium, Americium, Uranium have been identified as radioisotopes present on the exterior surfaces of Buildings 965, 968, and 980. One area on the interior of Building 980 was found to contain elevated values of natural Thorium.

Suspect hazardous materials include lead and asbestos as listed in Table 3-1.

STEP 4

What was the scope of this final survey?

The floors, walls, and fixed equipment inside Buildings 965, 968, and 980 were surveyed. Because of the radioactive material present above the unrestricted release criteria on the exterior and roof surfaces of Building 980, no additional surveys were performed on these exterior panels. The roofs and wall panels of Buildings 965 and 968 were surveyed, and based on the extent of contamination and the fact that Building 968's exterior surfaces were painted several times since it was constructed, the decision was made to remove the panels and process as radioactive waste. Ceilings were not surveyed.

What was the sample population of interest?

The interior surfaces of the floors, walls, ceiling and fixed equipment located within the interior of Buildings 965, 968, and 980 and exterior walls of Buildings 965 and 968 are the population of interest.

What kind of radiological hazard was evaluated?

Radioactive material present on the surface that is fixed and/or removable was evaluated. Gross alpha and gross beta measurements were taken to evaluate the radiological hazard.

Were there any constraints on data collection?

Data collection for radiological measurements was performed in accordance with the requirements of:

Draft NUREG/CR5849 - *Manual for Conducting Radiological Surveys in Support of License Termination*

Draft MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual*

The survey methods utilized are in conformance with the following RFETS procedures:

- | | |
|-----------------|---|
| 4-K62-ROI-03.01 | <i>Performance of Surface Contamination Surveys</i> |
| 4-S23-ROI-03.02 | <i>Radiological Requirements for Unrestricted Release</i> |
| 4-Q97-REP-1003 | <i>Radiological Evaluation for Unrestricted Release of Property/Waste</i> |
| 1-P73-HSP-18.10 | <i>Radioactive Material Transfer and Unrestricted Release of Property and Waste</i> |

Hazardous material was sampled and evaluated in accordance with the following:

Decommissioning Characterization Protocols

L-6294-A Sampling within an RBA/CA

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods/U.S. EPA SW 846, 1986, Third Edition

What sample measurement locations (densities) were necessary to get the desired certainty?

All areas of the Building 779 Cluster did not have the same potential for radioactive material being present and, therefore, did not require the same level of survey coverage to achieve an appropriate level of confidence that building surfaces satisfy established unrestricted release criteria. The CRSP was designed so that areas with higher potential for contamination received a higher degree of survey effort. This ensured that the CRSP was both effective and efficient.

The following area classifications with their associated survey frequencies was based on guidance from:

Draft NUREG/CR5849 - *Manual for Conducting Radiological Surveys in Support of License Termination*

Draft MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual*

Four area classifications were used to design the Building 980 Cluster CRSP. These classifications are defined as follows:

Class 1 Impacted (Affected) Areas: are areas that have potential contamination (based on building operating history) or known contamination (based on past or preliminary characterization survey data). This would normally include areas where radioactive materials were used and stored and where records indicate spills or other unusual occurrences could have resulted in the spread of contamination. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per square meter. In addition, an alpha/beta scan survey of 100% of the applicable surface areas, including fixed equipment, is required.

Class 2 Impacted (Affected) Areas: are areas that have or had a potential for radioactive contamination or known contamination, but are not expected to exceed the applicable contamination limits. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement at intervals as determined utilizing MARSSIM statistical calculations. In addition, a scan survey for alpha and beta of 10 to 100% of the applicable surface areas, including fixed equipment, will be performed as directed by Radiological Engineering personnel.

Class 3 Impacted (Unaffected) Areas: are all areas not classified as Class 1 or Class 2 Impacted or Non-Impacted. These areas are not expected to contain residual contamination above the applicable limits, based on knowledge of building history and previous survey information. However, insufficient documentation is present to exclude the area from survey requirements. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per 50 square meters or 30 points, whichever is greater. In addition, an alpha/beta scan survey of 10% of the applicable surface areas, including fixed equipment, is required.

Non-Impacted Areas: are all areas not classified as Class 1, Class 2 or Class 3 Impacted. These areas are areas where there is no reasonable potential for residual contamination, based on knowledge of building history and/or previous survey information. Sufficient information is present to be assured that no residual contamination is present above the applicable contamination limits.

These four classifications of areas were applied to the following areas of Buildings 965, 968, and 980:

1. Total Floor Area plus Total Wall Area
2. Total Floor Area plus the Wall Area up to a Height of 2 meters
3. Wall Area From a Height of 2 meters to the Ceiling
4. Ceilings
5. Fixed Equipment
6. Exterior walls of Buildings 968 and 965.
(Building 980 exterior walls, as well as a portion of the exterior walls of Building 965 and 968, and the roof panels of the three facilities contain fixed radioactive contamination above the unrestricted release limit and will not be released in an unrestricted manner.)

To what radiological hazards was the worker be exposed?

For the interior of Buildings 965, 968, and 980, minimal radiological hazards existed since the reconnaissance level characterization surveys show that no radioactive material was present above the unrestricted release criteria.

For the exterior of Buildings 965, 968, and 980, a radiological hazard existed since the reconnaissance level characterization surveys showed that radioactive material was present above the unrestricted release criteria for fixed alpha contamination.

STEP 5

What was the basis for the decision in Step 2?

The unrestricted release criteria outlined in Appendix A was the basis for deciding whether the structures and components of Buildings 965, 968, and 980 were released in an unrestricted manner.

The survey frequency required to allow an unrestricted release is based on guidance from:

Draft NUREG/CR5849 - *Manual for Conducting Radiological Surveys in Support of License Termination*

Draft MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual*

Were there any regulatory and statistical drivers for sampling frequency?

The survey frequency required to allow an unrestricted release was based on guidance from:

Draft NUREG/CR5849 - *Manual for Conducting Radiological Surveys in Support of License Termination*

Draft MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual*

1-P73-HSP-18.10 *Radioactive Material Transfer and Unrestricted Release of Property and Waste*

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods/U.S. EPA SW 846, 1986, Third Edition

What were the required instrumentation sensitivities?

The radiological instrumentation listed in Appendix B was used to perform all radiological surveys. The MDA of the instruments used to perform the surveys required in this CRSP was a fraction of the unrestricted release criteria outlined in Appendix A. A goal was to have the MDA of the instruments at or below 50% of the unrestricted release criteria.

What action levels were applicable to the decision or parameter of interest?

The unrestricted release criteria is outlined in Appendix A.

Define the decisions using "if...then" statements.

If the structures and components of Buildings 965, 968, and 980 contain no radioactive material above the unrestricted release criteria, then those components were released in an unrestricted manner.

If the structures and components of Buildings 965, 968, and 980 contain radioactive material above the unrestricted release criteria, then those components were removed.

If removed materials (structures and components) are radioactively contaminated, then those removed materials were not be released in an unrestricted manner.

STEP 6

What sample size was necessary for the analysis being completed?

The sample size was defined for different areas in Buildings 965, 968, and 980 as outlined in the following table and discussed below:

Area Description	Classification
Interior of the east end of Building 980 (floors and walls) (These areas are located in the RBA and/or the CA within Building 980)	Class 1 Impacted (Affected)
Thorium area in the east end of Building 980	
Exterior walls of Buildings 968 and 965	Class 1 Impacted (Affected)
Remaining floors, interior walls and fixed equipment < 2 meters up in Building 980	Class 2 Impacted (Affected)
Interior walls and fixed equipment above 2 meters in Building 980 Floors, interior walls, and fixed equipment in Buildings 965 and 968	Class 3 Impacted (Unaffected)
Ceilings of 965, 968, and 980	Non-Impacted

The floors, walls, and fixed equipment were surveyed for fixed and removable, gross alpha and gross beta contamination as indicated in the survey summary provided in Appendix C, in accordance with the following:

What number of samples/measurements provided the desired certainty?

Building 980 was used as a warehouse and to store construction equipment which was not in use. Because equipment which was used in plutonium buildings was stored in Building 980, the storage areas were considered to have a potential for plutonium contamination; therefore, the west end in Building 980, below 2 meters, was considered to be a Class 2 area. The initial characterization of storage areas identified no radioactive contamination.

The east end of Building 980 was converted into a decontamination room for the solar pond vacuum trucks. The east end of Building 980 was set up as a RCA during the truck decontamination process. Due to potential radioactive material being present above the unrestricted release level, the east end of Building 980 was considered an Impacted area with a survey population to meet Class 1 requirements. Based on the fact that no radioactive contamination above the Appendix A limits was detected on the floors or walls of the area (over 500 measurements), the ceiling of this area, remained classified as Non-Impacted. This is the same classification as the remaining ceiling areas in Building 980 and the ceilings in Buildings 965 and 968.

The west end of Building 980 was considered an Impacted area with a survey population of Class 2 on the floor and walls up to 2 meters. The survey population above 2 meters (excluding the ceiling) met Class 3 requirements. The west end ceiling was considered Non-Impacted since no contamination was found on the floor and walls during characterization surveys.

During In-process characterization surveys internal to Building 980 a high alpha contamination (fixed) area was identified. The alpha contamination was verified to be Thorium and the survey density was, therefore, increased to Impacted Class 1 (see Appendix C). The size of the area shall be large enough to encompass the area of interest. The Thorium activity was expected since tungsten welding rods with natural Thorium were routinely sharpened on a grinder in this area.

Building 968 like Building 980, was used as a warehouse. Used, small hand tools were stored on shelving in the building; however, Building 968 was primarily used to stage new parts. An addition to the south end of the building was used as a vehicle maintenance area. Because Building 968 did not contain a CA and because an extensive baseline survey (over 500 fixed and removable measurements) as well as extensive free release surveys on the shelving did not reveal any contamination present, the survey population of Building 968 was different from Building 980. The entire interior (except ceiling), of Building 968 was surveyed as a Class 3 Impacted area. No distinction was drawn above and below 2 meters due to the extensive number of surveys showing no radioactive material above unrestricted release levels. The Building 968 ceiling was considered a Non-Impacted area.

Building 965 was used for minor vehicle maintenance and as a carpenter shop. The building was later used as a break room for the security force. The potential for radioactive contamination was considered very low. The building's interior survey population was considered as Impacted Class 3. No distinction was drawn above and below 2 meters because of the small area being surveyed.

Fixed radioactive contamination was identified on the exterior of all three buildings (980, 968, and 965).

Because the exterior contamination on Building 980 (reconnaissance level characterization) appeared to be uniform, project personnel made the decision to treat the exterior panels of the building as low-level radioactive waste. Additional surveys were only required as the exterior panels were removed to check the overlapping seams for removable contamination (see Appendix C).

Based on the contamination found on the exterior of Building 980 and the reconnaissance level characterization of Buildings 968 and 965, the survey populations of Buildings 968 and 965 were increased to Impacted Class 1.

Fixed equipment surveys were performed on a random basis to verify that no radioactive contamination was present above the Appendix A limits in the interior of Buildings 965, 968, and 980. A minimum of 30 biased measurements were taken on fixed equipment in Buildings 968 and 980. Only 10 biased measurements were taken in Building 965 due to the minimal equipment present as well as the relative small size of the building.

A minimum of 30 biased fixed and removable measurements were obtained on newly exposed surfaces of the beams on each of the buildings.

Class 1 Impacted Areas Survey and Sampling Requirements

Floors Surveys:

- One fixed alpha and beta total surface activity measurement for each one square meter.
- One alpha and beta removable activity measurement for each one square meter.
- A 100% alpha and beta scan performed on accessible floor surfaces.

Walls:

- One fixed alpha and beta total surface activity measurement for each one square meter.
- One alpha and beta removable activity measurement for each one square meter.
- A 100% beta and alpha scan performed on accessible surfaces.

Class 2 Affected Areas Survey and Sampling Requirements

Floors/Lower Walls below two meters:

- One fixed alpha and beta total surface activity measurement based on MARSSIM statistical calculations (See Appendix B).
- One alpha and beta removable activity measurement based on MARSSIM statistical calculations (see Appendix B).
- A 50% alpha and beta scan based on total survey surface area performed on selected biased locations.

Class 3 Unaffected Areas Survey and Sampling Requirements

Floors/Walls:

- One fixed alpha and beta total surface activity measurements for each 50 square meters or 30 measurements, whichever is greater.
- One alpha and beta removable activity measurement for each 50 square meters or 30 measurements, whichever is greater.
- A 10% alpha and beta scan based on total survey surface area performed on selected biased locations.

How was the survey design be optimized?

Measurement locations were clearly identified to provide a method of referencing survey results to survey measurement locations. Gridding was used for the floors and walls for areas with Affected/Impacted final classification only. Grids were marked by markers and/or labels at grid locations. In areas where gridding was not practical or cost effective, measurement locations were marked with labels and delineated on maps as directed by Radiological Engineering.

Were data quantity and quality assurance (QA) requirements for sampling reviewed and incorporated into the survey process?

QA was addressed in Section 8.0 of this CR. The survey reports were prepared and reviewed in accordance with RFETS procedures.

8.0 RESPONSIBILITIES

8.1 PROJECT MANAGER

The Project Manager was responsible for reviewing and approving the Building 980 Cluster decommissioning project CRSP and CR.

8.2 DECOMMISSIONING RADIOLOGICAL ENGINEER

The Decommissioning Radiological Engineer was responsible to:

Evaluate the project structures and appropriately classify the areas for survey.

- Develop overall technical aspects, planning, and scheduling for implementation of the Close-Out Radiological Survey.
- Define the content and ensure preparation of the Building 980 Cluster decommissioning project Close-Out Radiological Survey Report (CRSR).
- Resolve issues regarding survey layout and gridding requirements.
- Review surveys and sample analysis results for completeness, accuracy, and legibility.

8.3 RADIOLOGICAL ENGINEER

The Radiological Engineer was responsible to:

- Review and approve the Building 980 Cluster decommissioning project CRSP and CR.
- Ensure that the Close-Out Radiological Survey was developed and consistent with RFETS requirements.
- Review survey data for completeness, accuracy, and legibility. Ensure discrepancies in survey data were identified and corrected.
- Assist with the preparation of the CRSR.
- Preparation and approval of the Property Release Evaluation (PRE).
- Ensure that appropriate background levels were applied.

8.4 RADIOLOGICAL CONTROL TECHNICIANS

The Radiological Control Technicians (RCTs) were responsible to:

- Perform surveys in accordance with this plan, approved RFETS procedures, and direction provided by the Radiological Engineer.
- Provide complete, accurate, and legible documentation for all surveys performed.

9.0 QUALITY ASSURANCE (QA)

9.1 RADIOLOGICAL SURVEY DOCUMENTATION

Records of the survey were maintained in a survey package. The survey package was the primary method of controlling and tracking close-out radiological survey results. The records compiled in the survey package included:

- Completed Contamination Survey Results (Fixed and Removable)
- Completed PREs
- Survey Area Diagrams/Maps
- Printout Of Smear Survey Analysis
- Laboratory Analysis Results
- Data Analysis Summary

10.0 REPORTING SURVEY FINDINGS

A summary of the following measurement results and overall conclusions showing that the building surfaces met the release criteria is provided in Appendix C. In addition, copies of the actual survey results for the buildings are included.

- Total Surface Beta-Gamma Activity
- Total Surface Alpha Activity
- Removable Surface Beta-Gamma Activity
- Removable Surface Alpha Activity

11.0 WASTE DISPOSITION

Sanitary Waste (cubic yards)	Recycled Non-radioactive Waste (pounds)	Recycled Radioactive Waste (pounds)
180	203,000	92,000

12.0 UTILITY CONFIGURATION

12.1 ELECTRIC POWER

The electric power to Buildings 980, 968, and 965 was isolated at the pole mounted cutout fuses located on pole #C6-673B. All electrical conduit, wiring, and transformers down stream of this point were removed. Power poles #C6-673A, #C7-652, and #C7-652A were cut off at ground level and removed. Transformer T-980 was also removed. Power was the only utility supplied to building 965.

12.2 SANITARY SEWER

Sanitary sewer lines exist in the slab in Buildings 980 and 968. These lines were dammed approximately 6 inches below ground level and grouted shut.

12.3 FIRE WATER

The fire system entered the slab in both Buildings 968 and 980. The line at Building 968 is isolated at the Post Indicator Valve #C6-3R. The line at Building 980 is isolated at the Post Indicator Valve #C6-17R. At the slab, these lines were dammed approximately 5 feet below grade. The line was filled with an open cell foam to the surface and then capped.

12.4 DOMESTIC WATER

The domestic water was isolated by another project at a valve near Building 779. The lines penetrating the slab at Buildings 980 and 968 were dammed approximately 6 inches below grade and filled with grout.

12.5 NATURAL GAS

Natural gas service to Buildings 968 and 980 was terminated at the tee off the main header to both buildings. The valve was tagged "out-of-service" and a blind flange and gasket were installed on the down stream side of the valve.

13.0 REFERENCES

Draft NUREG/CR5849 - *Manual For Conducting Radiological Surveys In Support Of License Termination (Draft)*

MARSSIM - *Multi-Agency Radiation Survey And Site Investigation Manual (Draft)*

Site Procedure 4-K62-ROI-03.01, *Performance Of Surface Contamination Surveys*

Site Procedure 4-S23-ROI-03.02, *Radiological Requirements For Unrestricted Release*

Site Procedure 4-Q97-REP-1003, *Radiological Evaluation For Unrestricted Release Of Property/Waste*

Site Procedure I-P73-HSP-18.10, *Radioactive Material Transfer And Unrestricted Release Of Property And Waste*

Reconnaissance Level Characterization Report For The Building 980 Trailer Removal Project, August 1997

Decommissioning Program Plan, Draft, July 1997

DOE, 1996, *Final Rocky Flats Cleanup Agreement*, RFETS, Golden, CO

Decommissioning Characterization Protocols

L-6294-A *Sampling Within An RBA/CA*

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods/ U.S. EPA SW 846, 1986, Third Edition

Appendix A
Summary Of Contamination Values
For Unrestricted Release

Summary Of Contamination Values For Unrestricted Release

RADIONUCLIDE (1)	Average Total (Fixed + Removable) Contamination dpm/100 cm² (2), (3), (4)	Maximum Total (Fixed + Removable) dpm/100 cm² (2),(4), (5)	Removable dpm/100 cm² (2), (4), (6)
Transuranics, Ra-226, Ra-228, Th-228, Pa-231, Ac-227, I-125, I-129	100	300	20
Th-Natural, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-131, I-133	1,000	3,000	200
U-Natural, U-235, U-238, and associated decay products, alpha emitters	5,000	15,000	1,000
Beta-gamma emitters (radionuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above (7)	5,000	15,000	1,000

NOTES:

- (1) Where surface contamination by both alpha and beta-gamma emitting radionuclides exists, the limits established for alpha and beta-gamma emitting radionuclides should apply independently.
- (2) As used in this table, disintegrations per minute (dpm) is defined as the rate of emission by radioactive material as determined by correcting the counts per minute measured by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.
- (3) Measurements of average contamination should not be averaged over an area of more than 1 meter². For objects with a total surface area of less than 1 meter², the average should be derived for each object.
- (4) The average and maximum dose rates associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mRad/hour and 1.0 mRad/hour, respectively at 1 cm.
- (5) The maximum contamination level applies to an area of not more than 100 cm².
- (6) The amount of removable material per 100 cm² of surface area should be determined by wiping an area of that size with a dry filter of soft absorbent paper, applying moderate pressure, and measuring the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of surface area less than 100 cm² is determined, the activity per unit area should be based on the actual area and the entire surface should be wiped. Except for transuranics and Ra-228, Ac-227, Th-228, Th-230, Pa-231, and alpha emitters, it is not necessary to use swiping techniques to measure removable contamination levels if direct scan surveys indicate the total residual surface contamination levels are within the limits for removable contamination.
- (7) This category of radionuclides includes mixed fission products, including the Sr-90 which is present in them. It does not apply to Sr-90 which has been separated from the other fission products or mixtures where the Sr-90 has been enriched.

Appendix B
Radiological Survey Instrumentation

Radiological Survey Instrumentation

Instrument	Count Type	Allowable Background Counts	Acceptable Application	MDA (dpm/100 cm ²)
Bicron w/ A100 Probe	60 sec. (alpha)	2	Direct Alpha Surveys (Total Alpha Activity)	55
Bicron w/ B50 Probe	60 sec. (beta)	250	Direct Beta Surveys (Total Beta Activity)	610
NE Electra w/ DP6 Probe	60 sec. (alpha) 60 sec. (beta)	2 700	Direct Alpha Surveys (Total Activity) Direct Beta Surveys (Total Activity)	60 455
SAC-4	60 sec. (alpha)	1	Removable Alpha Swipes	18
LB-5100W	60 sec.* (alpha) 60 sec. (beta)	0.5 4	Simultaneous Removable Alpha and Beta Swipes	20* (alpha) 35 (beta)
BC-4	60 sec. (beta)	200	Removable Beta Swipes	205

*For smears counted on the Tennelec LB-5100W, this 60 second count time was increased to assure that the MDA is a fraction of the unrestricted release criteria for gross alpha contamination.

Appendix C
Radiological Survey Data

Radiological Survey Data

Summary Of Building 980 Cluster Survey Data

Survey Area	Surface Area (m ²)	Removable Survey Measurements	Fixed Survey Measurements	% Scan
965 Interior	186	33	43	10
965 Fixed Equipment	N/A	10	10	N/A
965 Newly Exposed Beams	N/A	32	32	N/A
968 Interior (Baseline)	N/A	500	500	N/A
968 Interior	1947	94	94	10
968 Central Wall	124	124	124	100
968 Fixed Equipment	N/A	30	30	N/A
968 Newly Exposed Beams	N/A	34	34	N/A
980 Interior (Sections 1-5)	2100	320	320	50/10*
980 Interior (Thorium Affected Area)	48	48	48	100
980 Interior (Section 6)	582	582	582	100
980 Fixed Equipment(Section 1 - 5)	N/A	60	60	N/A
980 Fixed Equipment(Section 6)	N/A	20	20	N/A
980 Newly Exposed Beams	N/A	42	42	N/A

* 50% on floor and lower walls, 10% on upper walls

Non-Impacted Areas Survey and Sampling Requirements

- No surveys required

What was the expected range of the parameter of interest?

All parameter values were expected to be less than the unrestricted release criteria outlined in Appendix A.

Define both types of decision errors (false negative and false positive)?

False negative (Type 1) errors occur when a detector's response is below the unrestricted release criteria when, in fact, radioactive material is present above the unrestricted release criteria.

False positive (Type 2) errors occur when a detector's response is above the unrestricted release criteria when, in fact, radioactive material is not present above the unrestricted release criteria.

What are the potential consequences of an incorrect decision?

For false negative errors, area/material would be released in an unrestricted manner when it should not be released in an unrestricted manner.

For false positive errors, area/material would not be released in an unrestricted manner when it should be released in an unrestricted manner.

What are the limits on decision errors?

The instrumentation listed in Appendix B was used to perform all radiological surveys. The MDA of the instruments used to perform the surveys required in this CRSP were a fraction of the unrestricted release criteria outlined in Appendix A. A goal was to have the MDA of the instruments at or below 50% of the unrestricted release criteria.

The use of these instruments with their associated MDAs, below the unrestricted release criteria, assured that false negative and false positive errors were minimized.

STEP 7

What method was used to obtain the desired information?

The survey methods utilized were in conformance with the following RFETS procedures:

4-K62-ROI-03.01	<i>Performance of Surface Contamination Surveys</i>
4-S23-ROI-03.02	<i>Radiological Requirements for Unrestricted Release</i>
4-Q97-REP-1003	<i>Radiological Evaluation for Unrestricted Release of Property/Waste</i>
1-P73-HSP-18.10	<i>Radioactive Material Transfer and Unrestricted Release of Property and Waste</i>

What level of worker protection was required to perform survey and other work in the facility, structure, or environs?

Standard industrial safety practices were utilized. Worker personnel protection clothing was identified in the Activity Hazard Analysis (AHA) and Radiological Work Permit, if required. Safety glasses, safety shoes, and leather gloves were required by the task AHA. No removable radioactive contamination was identified on the surfaces being surveyed; therefore, no radiological protection was required.

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 3 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 965

Survey Date: 6/13/97 Interior walls and fixed equipment

Location Number	Location/Description	Alpha Snear Result (dpm/100 cm ²)	Beta Snear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Wall	<18	<205	<55	<610	
2	Wall	<18	<205	<55	<610	
3	Wall	<18	<205	57	<610	
4	Wall	<18	<205	<55	<610	
5	Wall	<18	<205	<55	<610	
6	Wall	<18	<205	63	<610	
7	Wall	<18	<205	<55	<610	
8	Wall	<18	<205	57	<610	
9	Floor	<18	<205	75	648	
10	Floor	<18	<205	<55	616	
11	Floor	<18	<205	<55	<610	
12	Floor	<18	<205	<55	<610	
25	Bottom of work bench	<18	<205	<55	<610	
26	board	<18	<205	<55	<610	
27	paper towel holder	<18	<205	<55	<610	
28	cork board	<18	<205	<55	<610	
29	heater	<18	<205	57	<610	
30	metal book rack	<18	<205	<55	<610	
31	heater	<18	<205	<55	<610	
32	cork board	<18	<205	<55	<610	
33	top of work bench	<18	<205	<55	<610	
34	top of work bench	<18	<205	<55	<610	

Data Summary of Interior of Building 965 (Continued)

Survey Date: 7/24/97 Interior walls above false ceiling

Survey Location	Location/Description	Alpha Smear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Wall	<18	<205	<60	<455	
2	Wall	<18	<205	<60	<455	
3	Wall	<18	<205	<60	<455	
4	Wall	<18	<205	<60	<455	
5	Wall	<18	<205	<60	<455	
6	Wall	<18	<205	<60	<455	
7	Wall	<18	<205	<60	<455	
8	Wall	<18	<205	<60	<455	
9	Wall	<18	<205	<60	<455	
10	Wall	<18	<205	<60	<455	
11	Wall	<18	<205	<60	<455	

Survey Dates: 6/30/97 and 9/10/97 Interior walls during 10% scan

Survey Location	Location/Description	Alpha Smear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
17	Floor	N/A	N/A	<60	<455	
18	Floor	<18	<205	<60	<455	
19	Floor	<18	<205	<60	<455	
20	Floor	N/A	N/A	<60	<455	
21	North Wall	N/A	N/A	<60	<455	
22	North Wall	N/A	N/A	<60	<455	
23	North Wall	<18	<205	<60	<455	
24	North Wall	<18	<205	<60	<455	
25	West Wall	N/A	N/A	<60	<455	
26	West Wall	N/A	N/A	<60	<455	
27	West Wall	<18	<205	<60	<455	
28	West Wall	<18	<205	<60	<455	
29	South Wall	<18	<205	<60	<455	
30	South Wall	N/A	N/A	<60	<455	
31	South Wall	N/A	N/A	<60	<455	
32	South Wall	<18	<205	<60	<455	
33	East Wall	<18	<205	<60	<455	
34	East Wall	N/A	N/A	<60	<455	
35	East Wall	N/A	N/A	<60	<455	
36	East Wall	<18	<205	<60	<455	

Data Summary of Interior of Building 965 (Continued)

Survey Date: 9/19/97 Beam surfaces after exterior panel removal

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
1	West side of bldg	<18	<205	<60	<455	
2	West side of bldg	<18	<205	<60	<455	
3	West side of bldg	<18	<205	<60	<455	
4	West side of bldg	<18	<205	<60	<455	
5	West side of bldg	<18	<205	<60	<455	
6	West side of bldg	<18	<205	<60	<455	
7	West side of bldg	<18	<205	<60	<455	
8	West side of bldg	<18	<205	<60	<455	
9	South side of bldg	<18	<205	<60	<455	
10	South side of bldg	<18	<205	<60	<455	
11	South side of bldg	<18	<205	<60	<455	
12	South side of bldg	<18	<205	<60	<455	
13	South side of bldg	<18	<205	<60	<455	
14	South side of bldg	<18	<205	<60	<455	
15	South side of bldg	<18	<205	<60	<455	
16	South side of bldg	<18	<205	<60	<455	
17	East side of bldg	<18	<205	<60	<455	
18	East side of bldg	<18	<205	<60	<455	
19	East side of bldg	<18	<205	<60	<455	
20	East side of bldg	<18	<205	<60	<455	
21	East side of bldg	<18	<205	<60	<455	
22	East side of bldg	<18	<205	<60	<455	
23	East side of bldg	<18	<205	<60	<455	
24	East side of bldg	<18	<205	<60	<455	
25	North side of bldg	<18	<205	<60	<455	
26	North side of bldg	<18	<205	<60	<455	
27	North side of bldg	<18	<205	<60	<455	
28	North side of bldg	<18	<205	<60	<455	
29	North side of bldg	<18	<205	<60	<455	
30	North side of bldg	<18	<205	<60	<455	
31	North side of bldg	<18	<205	<60	<455	
32	North side of bldg	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 6 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980

Survey Date: 6/12/97 Floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
1	Section 1 Wall	<18	<205	<60	<455	
2	Section 1 Wall	<18	<205	<60	<455	
3	Section 1 Floor	<18	<205	<60	585	
4	Section 1 Floor	<18	<205	<60	1085	
5	Section 1 Floor	<18	<205	<60	645	
6	Section 1 Floor	<18	<205	<60	1088	
7	Section 1 Floor	<18	<205	<60	618	
8	Section 1 Floor	<18	<205	<60	1008	
9	Section 1 Floor	<18	<205	<60	798	
10	Section 1 Floor	<18	<205	<60	1131	
11	Section 1 Wall	<18	<205	<60	<455	
12	Section 1 Wall	<18	<205	<60	<455	
13	Section 1 Wall	<18	<205	<60	<455	
14	Section 1 Wall	<18	<205	<60	<455	
15	Section 1 Wall	<18	<205	<60	<455	
16	Section 1 Wall	<18	<205	<60	<455	
17	Section 1 Wall	<18	<205	<60	<455	
18	Section 1 Wall	<18	<205	<60	<455	
19	Section 2 Floor	<18	<205	<55	<610	
20	Section 2 Wall	<18	<205	<55	<610	
21	Section 2 Wall	<18	<205	<55	<610	
22	Section 2 Wall	<18	<205	<55	<610	
23	Section 2 Wall	<18	<205	<55	<610	
24	Section 3 Wall	<18	<205	<60	<455	
25	Section 3 Wall	<18	<205	<60	<455	
26	Section 3 Wall	<18	<205	<60	<455	
27	Section 3 Wall	<18	<205	<60	<455	
28	Section 3 Floor	<18	<205	<60	1008	
29	Section 3 Floor	<18	<205	<60	927	
30	Section 3 Floor	<18	<205	<60	897	
31	Section 3 Floor	<18	<205	<60	918	
32	Section 3 Floor	<18	<205	<60	840	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 7 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 6/12/97 Floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
33	Section 3 Floor	<18	<205	<60	900	
34	Section 3 Floor	<18	<205	<60	1023	
35	Section 3 Floor	<18	<205	<60	961	
36	Section 3 Wall	<18	<205	<60	1085	
37	Section 3 Wall	<18	<205	<60	645	
38	Section 3 Wall	<18	<205	<60	1068	
39	Section 3 Wall	<18	<205	<60	618	
40	Section 4 Floor	<18	<205	<60	1008	
41	Section 4 Floor	<18	<205	<60	798	
42	Section 4 Floor	<18	<205	<60	1131	
43	Section 4 Floor	<18	<205	<60	<455	
44	Section 4 Floor	<18	<205	<60	<455	
45	Section 4 Floor	<18	<205	<60	<455	
46	Section 4 Floor	<18	<205	<60	<455	
47	Section 4 Floor	<18	<205	<60	<455	
48	Section 4 Wall	<18	<205	<60	<455	
49	Section 4 Wall	<18	<205	<60	<455	
50	Section 4 Wall	<18	<205	<60	<455	
51	Section 4 Wall	<18	<205	<55	<455	
52	Section 4 Wall	<18	<205	<55	<455	
53	Section 4 Wall	<18	<205	<55	<455	
54	Section 4 Wall	<18	<205	<55	<455	
55	Section 4 Wall	<18	<205	<55	<455	
56	Section 4 Wall	<18	<205	<60	<455	
57	Section 4 Wall	<18	<205	<60	<455	
58	Section 5 Floor	<18	<205	<55	<610	
59	Section 5 Floor	<18	<205	<55	<610	
60	Section 5 Wall	<18	<205	<55	<610	
61	Section 5 Wall	<18	<205	<55	<610	
62	Section 5 Wall	<18	<205	<55	<610	
63	Section 5 Wall	<18	<205	<55	<610	
64	Section 5 Wall	<18	<205	<55	<610	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 8 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 6/12/97 Floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
65	Section 5 Wall	<18	<205	<55	<610	
66	Section 4 Wall	<18	<205	<55	<610	
67	Section 4 Wall	<18	<205	<55	<610	
68	Section 4 Wall	<18	<205	<55	<610	
69	Section 4 Wall	<18	<205	<55	<610	
70	Section 4 Floor	<18	<205	<55	<610	
71	Section 4 Wall	<18	<205	<55	<610	
72	Section 4 Wall	<18	<205	<55	<610	
73	Section 4 Wall	<18	<205	<55	<610	
74	Section 4 Floor	<18	<205	<60	720	
75	Section 4 Wall	<18	<205	<60	<610	
76	Sink drain	<18	<205	<60	608	
77	Sink drain	<18	<205	<60	502	
78	Sink drain	<18	<205	<60	<455	
79	Rack	<18	<205	<60	622	
80	Rack	<18	<205	<60	<455	
81	Rack	<18	<205	<60	<455	
82	Rack	<18	<205	<60	<455	
83	Breaker	<18	<205	<60	<455	
84	Downdraft	<18	<205	<60	<455	
85	Breaker	<18	<205	<60	<455	
86	Compressor	<18	<205	<60	<455	
87	Compressor	<18	<205	<60	<455	
88	Compressor	<18	<205	<60	<455	
89	Compressor	<18	<205	<60	<455	
90	Compressor	<18	<205	<60	<455	
91	Compressor	<18	<205	<60	<455	
92	Compressor	<18	<205	<60	<455	
93	Compressor	<18	<205	<60	<455	
94	Compressor	<18	<205	<60	<455	
95	Compressor	<18	<205	<60	<455	
96	Shelves	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 6/12/97 Floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
97	Shelves	<18	<205	<60	<455	
98	Shelves	<18	<205	<60	<455	
99	Shelves	<18	<205	<60	<455	
100	Shelves	<18	<205	<60	<455	
101	Shelves	<18	<205	<60	<455	
102	Shelves	<18	<205	<60	<455	
103	Shelves	<18	<205	<60	<455	
104	Shelves	<18	<205	<60	<455	
105	Shelves	<18	<205	<60	<455	
106	Shelves	<18	<205	<60	<455	
107	Shelves	<18	<205	<60	<455	
108	Shelves	<18	<205	<60	<455	
109	Breaker	<18	<205	<60	<455	

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
1	Section 1 Floor	<18	<205	<60	<455	
2	Section 1 Floor	<18	<205	<60	<455	
3	Section 1 Floor	<18	<205	<60	<455	
4	Section 1 Floor	<18	<205	<60	<455	
5	Section 1 Floor	<18	<205	<60	<455	
6	Section 1 Floor	<18	<205	<60	<455	
7	Section 1 Floor	<18	<205	<60	<455	
8	Section 1 Floor	<18	<205	<60	<455	
9	Section 1 Floor	<18	<205	<60	<455	
10	Section 1 Floor	<18	<205	<60	<455	
11	Section 1 Floor	<18	<205	<60	<455	
12	Section 1 Floor	<18	<205	<60	<455	
13	Section 1 Floor	<18	<205	<60	<455	
14	Section 1 Floor	<18	<205	<60	<455	
15	Section 1 Floor	<18	<205	<60	<455	
16	Section 1 Floor	<18	<205	<60	<455	
17	Section 1 Floor	<18	<205	<60	<455	
18	Section 1 Floor	<18	<205	<60	<455	
19	Section 1 Floor	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
20	Section 1 Floor	<18	<205	<60	<455	
21	Section 1 Floor	<18	<205	<60	<455	
22	Section 1 Floor	<18	<205	<60	<455	
23	Section 1 Floor	<18	<205	<60	<455	
24	Section 1 Floor	<18	<205	<60	<455	
25	Section 1 Floor	<18	<205	<60	<455	
26	Section 1 Floor	<18	<205	<60	<455	
27	Section 1 Floor	<18	<205	<60	<455	
28	Section 1 Floor	<18	<205	<60	<455	
29	Section 1 Floor	<18	<205	<60	<455	
30	Section 1 Floor	<18	<205	<60	<455	
31	Section 1 Floor	<18	<205	<60	<455	
32	Section 1 Floor	<18	<205	<60	<455	
33	Section 1 Floor	<18	<205	<60	<455	
34	Section 1 Floor	<18	<205	<60	<455	
35	Section 1 Floor	<18	<205	<60	<455	
36	Section 1 Floor	<18	<205	<60	<455	
37	Section 3 floor	<18	<205	<60	<455	
38	Section 3 floor	<18	<205	<60	<455	
39	Section 3 floor	<18	<205	<60	<455	
40	Section 3 floor	<18	<205	<60	<455	
41	Section 3 floor	<18	<205	<60	<455	
42	Section 3 floor	<18	<205	<60	<455	
43	Section 3 floor	<18	<205	<60	<455	
44	Section 3 floor	<18	<205	<60	<455	
45	Section 3 floor	<18	<205	<60	<455	
46	Section 3 floor	<18	<205	<60	<455	
47	Section 3 floor	<18	<205	<60	<455	
48	Section 3 floor	<18	<205	<60	<455	
49	Section 3 floor	<18	<205	<60	<455	
50	Section 3 floor	<18	<205	<60	<455	
51	Section 3 floor	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 11 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
52	Section 3 floor	<18	<205	<60	<455	
53	Section 3 floor	<18	<205	<60	<455	
54	Section 3 floor	<18	<205	<60	<455	
55	Section 3 floor	<18	<205	<60	<455	
56	Section 3 floor	<18	<205	80	<455	
57	Section 3 floor	<18	<205	<60	<455	
58	Section 3 floor	<18	<205	66	<455	
59	Section 3 floor	<18	<205	<60	<455	
60	Section 3 floor	<18	<205	<60	<455	
61	Section 3 floor	<18	<205	<60	<455	
62	Section 3 floor	<18	<205	<60	<455	
63	Section 3 floor	<18	<205	<60	<455	
64	Section 3 floor	<18	<205	78	<455	
65	Section 3 floor	<18	<205	<60	<455	
66	Section 3 floor	<18	<205	<60	<455	
67	Section 3 floor	<18	<205	<60	<455	
68	Section 3 floor	<18	<205	<60	<455	
69	Section 3 floor	<18	<205	<60	<455	
70	Section 4 floor	<18	<205	<60	<455	
71	Section 4 floor	<18	<205	<60	<455	
72	Section 4 floor	<18	<205	<60	<455	
73	Section 4 floor	<18	<205	<60	<455	
74	Section 4 floor	<18	<205	<60	<455	
75	Section 4 floor	<18	<205	<60	<455	
76	Section 4 floor	<18	<205	<60	<455	
77	Section 4 floor	<18	<205	<60	<455	
78	Section 4 wall	<18	<205	<60	<455	
79	Section 4 wall	<18	<205	<60	<455	
80	Section 3 wall	<18	<205	<60	<455	
81	Section 3 wall	<18	<205	<60	<455	
82	Section 3 wall	<18	<205	<60	<455	
83	Section 3 wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 12 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSnear Result (dpm/100 cm ²)	Beta Snear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
84	Section 3 wall	<18	<205	<60	<455	
85	Section 3 wall	<18	<205	<60	<455	
86	Section 3 wall	<18	<205	<60	<455	
87	Section 3 wall	<18	<205	<60	<455	
88	Section 1 wall	<18	<205	<60	<455	
89	Section 1 wall	<18	<205	<60	<455	
90	Section 1 wall	<18	<205	<60	<455	
91	Section 1 wall	<18	<205	<60	<455	
92	Section 1 wall	<18	<205	<60	<455	
93	Section 1 wall	<18	<205	<60	<455	
94	Section 1 wall	<18	<205	<60	<455	
95	Section 1 wall	<18	<205	<60	<455	
96	Section 1 wall	<18	<205	<60	<455	
97	Section 1 wall	<18	<205	<60	<455	
98	Section 1 wall	<18	<205	<60	<455	
99	Section 1 wall	<18	<205	<60	<455	
100	Section 1 wall	<18	<205	<60	<455	
101	Section 1 wall	<18	<205	<60	<455	
102	Section 1 wall	<18	<205	<60	<455	
103	Section 1 wall	<18	<205	<60	<455	
104	Section 1 wall	<18	<205	<60	<455	
105	Section 1 wall	<18	<205	<60	<455	
106	Section 1 wall	<18	<205	<60	<455	
107	Section 1 wall	<18	<205	<60	<455	
108	Section 3 wall	<18	<205	<60	<455	
109	Section 3 wall	<18	<205	<60	<455	
110	Section 3 wall	<18	<205	<60	<455	
111	Section 3 wall	<18	<205	<60	<455	
112	Section 3 wall	<18	<205	<60	<455	
113	Section 3 wall	<18	<205	<60	<455	
114	Section 3 wall	<18	<205	<60	<455	
115	Section 4 wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 13 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
116	Section 4 wall	<18	<205	<60	<455	
117	Section 4 wall	<18	<205	<60	<455	
118	Section 4 wall	<18	<205	<60	<455	
119	Section 4 wall	<18	<205	<60	<455	
120	Section 4 wall	<18	<205	<60	<455	
121	Section 4 floor	<18	<205	<60	<455	
122	Section 4 floor	<18	<205	<60	<455	
123	Section 4 floor	<18	<205	<60	<455	
124	Section 4 floor	<18	<205	<60	<455	
125	Section 4 floor	<18	<205	<60	<455	
126	Section 4 floor	<18	<205	<60	<455	
127	Section 4 floor	<18	<205	<60	<455	
128	Section 4 floor	<18	<205	<60	<455	
129	Section 4 floor	<18	<205	<60	<455	
130	Section 4 floor	<18	<205	<60	<455	
131	Section 4 floor	<18	<205	<60	<455	
132	Section 4 floor	<18	<205	<60	<455	
133	Section 4 floor	<18	<205	<60	<455	
134	Section 4 floor	<18	<205	<60	<455	
135	Section 4 floor	<18	<205	<60	<455	
136	Section 4 floor	<18	<205	<60	<455	
137	Section 4 floor	<18	<205	<60	<455	
138	Section 4 floor	<18	<205	<60	<455	
139	Section 4 floor	<18	<205	<60	<455	
140	Section 4 floor	<18	<205	<60	<455	
141	Section 4 floor	<18	<205	<60	<455	
142	Section 4 floor	<18	<205	<60	<455	
143	Section 4 floor	<18	<205	<60	<455	
144	Section 4 floor	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
148	Section 4 wall	<18	<205	<60	<455	
149	Section 4 wall	<18	<205	<60	<455	
150	Section 4 wall	<18	<205	<60	<455	
151	Section 4 wall	<18	<205	600*	<455	
152	Section 4 wall	<18	<205	<60	<455	
153	Section 4 wall	<18	<205	<60	<455	
154	Section 4 wall	<18	<205	<60	<455	
155	Section 4 wall	<18	<205	<60	<455	
156	Section 4 wall	<18	<205	<60	<455	
157	Section 4 wall	<18	<205	<60	<455	
158	Section 4 wall	<18	<205	<60	<455	
159	Section 4 wall	<18	<205	<60	<455	
160	Section 5 floor	<18	<205	<60	<455	
161	Section 5 floor	<18	<205	<60	<455	
162	Section 5 floor	<18	<205	<60	<455	
163	Section 5 floor	<18	<205	<60	<455	
164	Section 5 floor	<18	<205	<60	<455	
165	Section 5 floor	<18	<205	<60	<455	
166	Section 5 wall	<18	<205	<60	<455	
167	Section 5 wall	<18	<205	<60	<455	
168	Section 5 wall	<18	<205	<60	<455	
169	Section 5 wall	<18	<205	<60	<455	
170	Section 5 wall	<18	<205	<60	<455	
171	Section 5 wall	<18	<205	<60	<455	
172	Section 5 wall	<18	<205	<60	<455	
173	Section 5 wall	<18	<205	<60	<455	
174	Section 2 floor	<18	<205	<60	<455	
175	Section 2 floor	<18	<205	<60	<455	
176	Section 2 floor	<18	<205	<60	<455	
177	Section 2 floor	<18	<205	<60	<455	
178	Section 2 floor	<18	<205	<60	<455	
179	Section 2 floor	<18	<205	<60	<455	

* Material identified as Thorium - 5,000 dpm/100 cm² average/15,000 dpm/100 cm² maximum limits apply

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 15 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
180	Section 2 wall	<18	<205	<60	<455	
181	Section 2 wall	<18	<205	<60	<455	
182	Section 2 wall	<18	<205	<60	<455	
183	Section 2 wall	<18	<205	<60	<455	
184	Section 2 wall	<18	<205	<60	<455	
185	Section 2 wall	<18	<205	<60	<455	
186	Section 2 wall	<18	<205	<60	<455	
187	Section 2 wall	<18	<205	<60	<455	
188	Section 4 bathroom floor	<18	<205	<60	<455	
189	Section 4 bathroom floor	<18	<205	<60	<455	
190	Section 4 bathroom floor	<18	<205	<60	<455	
191	Section 4 bathroom floor	<18	<205	<60	<455	
192	Section 4 bathroom wall	<18	<205	<60	<455	
193	Section 4 bathroom wall	<18	<205	<60	<455	
194	Section 4 bathroom wall	<18	<205	<60	<455	
195	Section 4 bathroom wall	<18	<205	<60	<455	
196	Section 4 bathroom wall	<18	<205	<60	<455	
197	Section 4 bathroom wall	<18	<205	<60	<455	
198	Section 4 bathroom wall	<18	<205	<60	<455	
199	Section 4 office floor	<18	<205	<60	<455	
200	Section 4 office floor	<18	<205	<60	<455	
201	Section 4 office floor	<18	<205	<60	<455	
202	Section 4 office floor	<18	<205	<60	<455	
203	Section 4 office floor	<18	<205	<60	<455	
204	Section 4 office floor	<18	<205	<60	<455	
205	Section 4 office wall	<18	<205	<60	<455	
206	Section 4 office wall	<18	<205	<60	<455	
207	Section 4 office wall	<18	<205	<60	<455	
208	Section 4 office wall	<18	<205	<60	<455	
209	Section 4 office wall	<18	<205	<60	<455	
210	Section 4 office wall	<18	<205	<60	<455	
211	Section 4 office wall	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 50% scan w/ fixed points on floor and wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
212	Section 4 office wall	<18	<205	<60	<455	
213	Section 3 bathroom floor	<18	<205	<60	<455	
214	Section 3 bathroom wall	<18	<205	<60	<455	
215	Section 3 bathroom wall	<18	<205	<60	<455	
216	Section 3 bathroom wall	<18	<205	<60	<455	
217	Section 3 bathroom wall	<18	<205	<60	<455	
218	Section 3 office wall	<18	<205	<60	<455	
219	Section 3 office floor	<18	<205	<60	<455	
220	Section 3 office floor	<18	<205	<60	<455	
221	Section 3 office wall	<18	<205	<60	<455	
222	Section 3 office wall	<18	<205	<60	<455	
223	Section 3 office wall	<18	<205	<60	<455	

Survey Date: 7/29/97 10% scan w/ fixed points on upper wall surfaces Sections 1 - 5

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Six foot overhead light	<18	<205	<60	<455	
2	overhead dock door	<18	<205	<60	<455	
3	red steel pipe	<18	<205	<60	<455	
4	top of heater duct	<18	<205	<60	<455	
5	top of metal overhang	<18	<205	<60	<455	
6	cross beam	<18	<205	<60	<455	
7	mercury light	<18	<205	<60	<455	
8	hoist beam	<18	<205	<60	<455	
9	heater unit	<18	<205	<60	<455	
10	support beam	<18	<205	<60	<455	
11	metal rail	<18	<205	<60	<455	
12	hoist beam	<18	<205	<60	<455	
13	eight foot light fixture	<18	<205	<60	<455	
14	heater unit	<18	<205	<60	<455	
15	cross beam	<18	<205	<60	<455	
16	duct work above office	<18	<205	<60	<455	
17	top of heater	<18	<205	<60	<455	
18	hoist beam	<18	<205	<60	<455	
19	duct work	<18	<205	<60	<455	
20	duct work	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 17 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/29/97 10% scan w/ fixed points on upper wall surfaces Sections 1 - 5

21	support beam	<18	<205	<60	<455
22	light fixture	<18	<205	<60	<455
23	support beam	<18	<205	<60	<455
24	roof support beam	<18	<205	<60	<455
25	door door # 8	<18	<205	<60	<455
26	upper south wall	<18	<205	<60	<455
27	upper south wall	<18	<205	<60	<455
28	door door # 7	<18	<205	<60	<455
29	upper south wall	<18	<205	<60	<455
30	upper south wall	<18	<205	<60	<455
31	door door # 6	<18	<205	<60	<455
32	duct work above bathroom	<18	<205	<60	<455
33	upper wall above office	<18	<205	<60	<455
34	upper door south	<18	<205	<60	<455
35	upper door south	<18	<205	<60	<455
36	upper door south	<18	<205	<60	<455
37	upper north wall	<18	<205	<60	<455
38	upper north wall	<18	<205	<60	<455
39	upper north wall	<18	<205	<60	<455
40	upper north wall	<18	<205	<60	<455
41	upper north wall	<18	<205	<60	<455
42	upper north wall	<18	<205	<60	<455
43	door door # 9	<18	<205	<60	<455
44	upper north wall	<18	<205	<60	<455
45	upper north wall	<18	<205	<60	<455
46	upper north wall	<18	<205	<60	<455
47	upper north wall	<18	<205	<60	<455
48	upper north wall	<18	<205	<60	<455

Survey Date: 8/12/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
1	Floor	<18	<205	66	756	
2	Floor	<18	<205	<60	645	
3	Floor	<18	<205	<60	666	
4	Floor	<18	<205	<60	549	
5	Floor	<18	<205	<60	540	
6	Floor	<18	<205	<60	<455	
7	Floor	<18	<205	<60	540	
8	Floor	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 18 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
9	Floor	<18	<205	<60	513	
10	Floor	<18	<205	<60	<455	
11	Floor	<18	<205	<60	618	
12	Floor	<18	<205	<60	570	
13	Floor	<18	<205	<60	846	
14	Floor	<18	<205	<60	780	
15	Floor	<18	<205	<60	951	
16	Floor	<18	<205	<60	1057	
17	Floor	<18	<205	<60	834	
18	Floor	<18	<205	<60	897	
19	Floor	<18	<205	<60	732	
20	Floor	<18	<205	<60	840	
21	Floor	<18	<205	<60	1038	
22	Floor	<18	<205	<60	846	
23	Floor	<18	<205	<60	1044	
24	Floor	<18	<205	<60	576	
25	Floor	<18	<205	<60	<455	
26	Floor	<18	<205	<60	975	
27	Floor	<18	<205	<60	1188	
28	Floor	<18	<205	<60	996	
29	Floor	<18	<205	<60	972	
30	Floor	<18	<205	<60	867	
31	Floor	<18	<205	<60	696	
32	Floor	<18	<205	<60	774	
33	Floor	<18	<205	<60	999	
34	Floor	<18	<205	<60	954	
35	Floor	<18	<205	<60	810	
36	Floor	<18	<205	<60	837	
37	Floor	<18	<205	<60	519	
38	Floor	<18	<205	<60	<455	
39	Floor	<18	<205	<60	612	
40	Floor	<18	<205	<60	675	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
41	Floor	<18	<205	<60	717	
42	Floor	<18	<205	<60	540	
43	Floor	<18	<205	<60	513	
44	Floor	<18	<205	<60	<455	
45	Floor	<18	<205	<60	<455	
46	Floor	<18	<205	<60	<455	
47	Floor	<18	<205	<60	627	
48	Floor	<18	<205	<60	612	
49	Floor	<18	<205	<60	546	
50	Floor	<18	<205	<60	462	
51	Floor	<18	<205	<60	<455	
52	Floor	<18	<205	<60	<455	
53	Floor	<18	<205	<60	<455	
54	Floor	<18	<205	<60	<455	
55	Floor	<18	<205	<60	<455	
56	Floor	<18	<205	<60	768	
57	Floor	<18	<205	<60	633	
58	Floor	<18	<205	<60	731	
59	Floor	<18	<205	<60	564	
60	Floor	<18	<205	<60	<455	
61	Floor	<18	<205	<60	813	
62	Floor	<18	<205	<60	768	
63	Floor	<18	<205	<60	621	
64	Floor	<18	<205	<60	813	
65	Floor	<18	<205	60	567	
66	Floor	<18	<205	<60	672	
67	Floor	<18	<205	<60	<455	
68	Floor	<18	<205	<60	<455	
69	Floor	<18	<205	<60	<455	
70	Floor	<18	<205	<60	<455	
71	Floor	<18	<205	<60	<455	
72	Floor	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 20 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
73	Floor	<18	<205	<60	591	
74	Floor	<18	<205	<60	<455	
75	Floor	<18	<205	<60	<455	
76	Floor	<18	<205	<60	537	
77	Floor	<18	<205	<60	471	
78	Floor	<18	<205	<60	<455	
79	Floor	<18	<205	<60	<455	
80	Floor	<18	<205	<60	<455	
81	Floor	<18	<205	<60	651	
82	Floor	<18	<205	<60	612	
83	Floor	<18	<205	<60	534	
84	Floor	<18	<205	<60	765	
85	Floor	<18	<205	<60	987	
86	Floor	<18	<205	<60	768	
87	Floor	<18	<205	<60	<455	
88	Floor	<18	<205	<60	<455	
89	Floor	<18	<205	<60	<455	
90	Floor	<18	<205	<60	<455	
91	Floor	<18	<205	<60	<455	
92	Floor	<18	<205	<60	532	
93	Floor	<18	<205	<60	726	
94	Floor	<18	<205	<60	732	
95	Floor	<18	<205	<60	495	
96	Floor	<18	<205	<60	555	
97	Floor	<18	<205	<60	960	
98	Floor	<18	<205	<60	933	
99	Floor	<18	<205	<60	810	
100	Floor	<18	<205	<60	777	
101	Floor	<18	<205	<60	960	
102	Floor	<18	<205	<60	723	
103	Floor	<18	<205	<60	639	
104	Floor	<18	<205	<60	633	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 21 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 **100% scan w/ fixed points on floor and wall surfaces Sections 6**

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
105	Floor	<18	<205	<60	672	
106	Floor	<18	<205	<60	621	
107	Floor	<18	<205	<60	640	
108	Floor	<18	<205	<60	683	
109	Floor	<18	<205	<60	732	
110	Floor	<18	<205	<60	690	
111	No survey this point	N/A	N/A	N/A	N/A	
112	Floor	<18	<205	<60	609	
113	Floor	<18	<205	<60	513	
114	Floor	<18	<205	<60	504	
115	Floor	<18	<205	<60	504	
116	Floor	<18	<205	<60	485	
117	Floor	<18	<205	<60	618	
118	Floor	<18	<205	<60	831	
119	Floor	<18	<205	<60	567	
120	Floor	<18	<205	<60	747	
121	Floor	<18	<205	<60	717	
122	Floor	<18	<205	<60	729	
123	Floor	<18	<205	<60	750	
124	Floor	<18	<205	<60	642	
125	Floor	<18	<205	<60	864	
126	Floor	<18	<205	<60	948	
127	Floor	<18	<205	<60	759	
128	Floor	<18	<205	<60	846	
129	Floor	<18	<205	<60	776	
130	Floor	<18	<205	<60	918	
131	Floor	<18	<205	<60	573	
132	Floor	<18	<205	<60	1008	
133	Floor	<18	<205	<60	1167	
134	Floor	<18	<205	<60	938	
135	Floor	<18	<205	<60	609	
136	Floor	<18	<205	<60	744	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 22 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
137	Floor	<18	<205	<60	468	
138	Floor	<18	<205	<60	686	
139	Floor	<18	<205	<60	639	
140	Floor	<18	<205	<60	732	
141	Floor	<18	<205	<60	735	
142	Floor	<18	<205	<60	753	
143	Floor	<18	<205	<60	525	
144	Floor	<18	<205	<60	987	
145	Floor	<18	<205	<60	980	
146	Floor	<18	<205	<60	879	
147	Floor	<18	<205	<60	771	
148	Floor	<18	<205	<60	711	
149	Floor	<18	<205	<60	810	
150	Floor	<18	<205	<60	720	
151	Floor	<18	<205	<60	825	
152	Floor	<18	<205	<60	1005	
153	Floor	<18	<205	<60	909	
154	Floor	<18	<205	<60	765	
155	Floor	<18	<205	<60	867	
156	Floor	<18	<205	<60	849	
157	Floor	<18	<205	<60	885	
158	Floor	<18	<205	<60	1008	
159	Floor	<18	<205	<60	909	
160	Floor	<18	<205	<60	651	
161	Floor	<18	<205	<60	783	
162	Floor	<18	<205	<60	579	
163	Floor	<18	<205	<60	681	
164	Floor	<18	<205	<60	672	
165	Floor	<18	<205	<60	561	
166	Floor	<18	<205	<60	684	
167	Floor	<18	<205	<60	778	
168	Floor	<18	<205	<60	597	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
169	Floor	<18	<205	<60	507	
170	Floor	<18	<205	<60	996	
171	Floor	<18	<205	<60	567	
172	Floor	<18	<205	<60	667	
173	Floor	<18	<205	<60	630	
174	Floor	<18	<205	<60	783	
175	Floor	<18	<205	<60	591	
176	Floor	<18	<205	<60	<455	
177	Floor	<18	<205	<60	850	
178	Floor	<18	<205	<60	750	
179	Floor	<18	<205	<60	750	
180	Floor	<18	<205	<60	873	
181	Floor	<18	<205	<60	825	
182	Floor	<18	<205	<60	843	
183	Floor	<18	<205	<60	906	
184	Floor	<18	<205	<60	624	
185	Floor	<18	<205	<60	612	
186	Floor	<18	<205	<60	579	
187	Floor	<18	<205	<60	918	
188	Floor	<18	<205	<60	900	
189	Floor	<18	<205	<60	750	
190	Floor	<18	<205	<60	807	
191	Floor	<18	<205	<60	807	
192	Floor	<18	<205	<60	841	
193	Floor	<18	<205	<60	861	
194	Floor	<18	<205	<60	783	
195	Floor	<18	<205	<60	732	
196	Floor	<18	<205	<60	795	
197	Floor	<18	<205	<60	798	
198	Floor	<18	<205	<60	966	
199	Floor	<18	<205	<60	578	
200	Floor	<18	<205	<60	670	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
137	Floor	<18	<205	<60	468	
138	Floor	<18	<205	<60	686	
139	Floor	<18	<205	<60	639	
140	Floor	<18	<205	<60	732	
141	Floor	<18	<205	<60	735	
142	Floor	<18	<205	<60	753	
143	Floor	<18	<205	<60	525	
144	Floor	<18	<205	<60	997	
145	Floor	<18	<205	<60	980	
146	Floor	<18	<205	<60	879	
147	Floor	<18	<205	<60	771	
148	Floor	<18	<205	<60	711	
149	Floor	<18	<205	<60	810	
150	Floor	<18	<205	<60	720	
151	Floor	<18	<205	<60	825	
152	Floor	<18	<205	<60	1005	
153	Floor	<18	<205	<60	909	
154	Floor	<18	<205	<60	765	
155	Floor	<18	<205	<60	867	
156	Floor	<18	<205	<60	849	
157	Floor	<18	<205	<60	885	
158	Floor	<18	<205	<60	1008	
159	Floor	<18	<205	<60	909	
160	Floor	<18	<205	<60	651	
161	Floor	<18	<205	<60	783	
162	Floor	<18	<205	<60	579	
163	Floor	<18	<205	<60	681	
164	Floor	<18	<205	<60	672	
165	Floor	<18	<205	<60	561	
166	Floor	<18	<205	<60	684	
167	Floor	<18	<205	<60	778	
168	Floor	<18	<205	<60	597	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
169	Floor	<18	<205	<60	507	
170	Floor	<18	<205	<60	936	
171	Floor	<18	<205	<60	567	
172	Floor	<18	<205	<60	667	
173	Floor	<18	<205	<60	630	
174	Floor	<18	<205	<60	783	
175	Floor	<18	<205	<60	591	
176	Floor	<18	<205	<60	<455	
177	Floor	<18	<205	<60	860	
178	Floor	<18	<205	<60	750	
179	Floor	<18	<205	<60	750	
180	Floor	<18	<205	<60	873	
181	Floor	<18	<205	<60	825	
182	Floor	<18	<205	<60	843	
183	Floor	<18	<205	<60	906	
184	Floor	<18	<205	<60	624	
185	Floor	<18	<205	<60	612	
186	Floor	<18	<205	<60	579	
187	Floor	<18	<205	<60	918	
188	Floor	<18	<205	<60	900	
189	Floor	<18	<205	<60	750	
190	Floor	<18	<205	<60	807	
191	Floor	<18	<205	<60	807	
192	Floor	<18	<205	<60	841	
193	Floor	<18	<205	<60	861	
194	Floor	<18	<205	<60	783	
195	Floor	<18	<205	<60	732	
196	Floor	<18	<205	<60	795	
197	Floor	<18	<205	<60	798	
198	Floor	<18	<205	<60	966	
199	Floor	<18	<205	<60	678	
200	Floor	<18	<205	<60	670	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
201	Floor	<18	<205	<60	690	
202	Floor	<18	<205	<60	792	
203	Floor	<18	<205	<60	870	
204	Floor	<18	<205	<60	1045	
205	Floor	<18	<205	<60	900	
206	Floor	<18	<205	<60	1055	
207	Floor	<18	<205	<60	675	
208	Floor	<18	<205	<60	768	
209	Floor	<18	<205	<60	707	
210	Floor	<18	<205	<60	927	
211	Floor	<18	<205	<60	829	
212	Floor	<18	<205	<60	<455	
213	Floor	<18	<205	<60	816	
214	Floor	<18	<205	<60	801	
1	Office # 1 Floor	<18	<205	<60	<455	
2	Office # 1 Floor	<18	<205	<60	<455	
3	Office # 1 Floor	<18	<205	<60	<455	
4	Office # 1 Floor	<18	<205	<60	<455	
5	Office # 1 Floor	<18	<205	<60	<455	
6	Office # 1 Floor	<18	<205	<60	<455	
7	Office # 1 Floor	<18	<205	<60	<455	
8	Office # 1 Floor	<18	<205	<60	<455	
9	Office # 1 Floor	<18	<205	<60	<455	
10	Office # 1 Floor	<18	<205	<60	<455	
11	Office # 1 Floor	<18	<205	<60	<455	
12	Office # 1 Floor	<18	<205	<60	<455	
13	Office # 1 Floor	<18	<205	<60	<455	
14	Office # 1 Floor	<18	<205	<60	<455	
15	Office # 1 Floor	<18	<205	<60	<455	
16	Office # 1 Floor	<18	<205	<60	<455	
17	Office # 1 Floor	<18	<205	<60	<455	
18	Office # 1 Floor	<18	<205	<60	<455	
19	Office # 1 Floor	<18	<205	<60	<455	
20	Office # 1 Floor	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 25 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Inside North Wall	<18	<205	<60	<455	
2	Inside North Wall	<18	<205	<60	<455	
3	Inside North Wall	<18	<205	<60	<455	
4	Inside North Wall	<18	<205	<60	<455	
5	Inside North Wall	<18	<205	<60	<455	
6	Inside North Wall	<18	<205	<60	<455	
7	Inside North Wall	<18	<205	<60	<455	
8	Inside North Wall	<18	<205	<60	<455	
9	Inside North Wall	<18	<205	<60	<455	
10	Inside North Wall	<18	<205	<60	<455	
11	Inside North Wall	<18	<205	<60	<455	
12	Inside North Wall	<18	<205	<60	<455	
13	Inside North Wall	<18	<205	<60	<455	
14	Inside North Wall	<18	<205	<60	<455	
15	Inside North Wall	<18	<205	<60	<455	
16	Inside North Wall	<18	<205	<60	<455	
17	Inside North Wall	<18	<205	<60	<455	
18	Inside North Wall	<18	<205	<60	<455	
19	Inside North Wall	<18	<205	<60	<455	
20	Inside North Wall	<18	<205	<60	<455	
21	Inside North Wall	<18	<205	<60	<455	
22	Inside North Wall	<18	<205	<60	<455	
23	Inside North Wall	<18	<205	<60	<455	
24	Inside North Wall	<18	<205	<60	<455	
25	Inside North Wall	<18	<205	<60	<455	
26	Inside North Wall	<18	<205	<60	<455	
27	Inside North Wall	<18	<205	<60	<455	
28	Inside North Wall	<18	<205	<60	<455	
29	Inside North Wall	<18	<205	<60	<455	
30	Inside North Wall	<18	<205	<60	<455	
31	Inside North Wall	<18	<205	<60	<455	
32	Inside North Wall	<18	<205	<60	<455	
33	Inside North Wall	<18	<205	<60	<455	
34	Inside North Wall	<18	<205	<60	<455	
35	Inside North Wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 26 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
36	Inside North Wall	<18	<205	<60	<455	
37	Inside North Wall	<18	<205	<60	<455	
38	Inside North Wall	<18	<205	<60	<455	
39	Inside North Wall	<18	<205	<60	<455	
40	Inside North Wall	<18	<205	<60	<455	
41	Inside North Wall	<18	<205	<60	<455	
42	Inside North Wall	<18	<205	<60	<455	
43	Inside North Wall	<18	<205	<60	<455	
44	Inside North Wall	<18	<205	<60	<455	
45	Inside North Wall	<18	<205	<60	<455	
46	Inside North Wall	<18	<205	<60	<455	
47	Inside North Wall	<18	<205	<60	<455	
48	Inside North Wall	<18	<205	<60	<455	
49	Inside North Wall	<18	<205	<60	<455	
50	Inside North Wall	<18	<205	<60	<455	
51	Inside North Wall	<18	<205	<60	<455	
52	Inside North Wall	<18	<205	<60	<455	
53	Inside North Wall	<18	<205	<60	<455	
54	Inside North Wall	<18	<205	<60	<455	
55	Inside North Wall	<18	<205	<60	<455	
56	Inside North Wall	<18	<205	<60	<455	
57	Inside North Wall	<18	<205	<60	<455	
58	Inside North Wall	<18	<205	<60	<455	
59	Inside North Wall	<18	<205	<60	<455	
60	Inside North Wall	<18	<205	<60	<455	
61	Inside North Wall	<18	<205	<60	<455	
62	Inside North Wall	<18	<205	<60	<455	
63	Inside North Wall	<18	<205	<60	<455	
64	Inside North Wall	<18	<205	<60	<455	
65	Inside North Wall	<18	<205	<60	<455	
66	Inside North Wall	<18	<205	<60	<455	
67	Inside North Wall	<18	<205	<60	<455	
68	Inside North Wall	<18	<205	<60	<455	
69	Inside North Wall	<18	<205	<60	<455	
70	Inside North Wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C-27 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
71	Inside North Wall	<18	<205	<60	<455	
72	Inside North Wall	<18	<205	<60	<455	
73	Inside North Wall	<18	<205	<60	<455	
74	Inside North Wall	<18	<205	<60	<455	
75	Inside North Wall	<18	<205	<60	<455	
76	Inside North Wall	<18	<205	<60	<455	
77	Inside North Wall	<18	<205	<60	<455	
1	Inside South Wall	<18	<205	<60	<455	
2	Inside South Wall	<18	<205	<60	<455	
3	Inside South Wall	<18	<205	<60	<455	
4	Inside South Wall	<18	<205	<60	<455	
5	Inside South Wall	<18	<205	<60	<455	
6	Inside South Wall	<18	<205	<60	<455	
7	Inside South Wall	<18	<205	<60	<455	
8	Inside South Wall	<18	<205	<60	<455	
9	Inside South Wall	<18	<205	<60	<455	
10	Inside South Wall	<18	<205	<60	<455	
11	Inside South Wall	<18	<205	<60	<455	
12	Inside South Wall	<18	<205	<60	<455	
13	Inside South Wall	<18	<205	<60	<455	
14	Inside South Wall	<18	<205	<60	<455	
15	Inside South Wall	<18	<205	<60	<455	
16	Inside South Wall	<18	<205	<60	<455	
17	Inside South Wall	<18	<205	<60	<455	
18	Inside South Wall	<18	<205	<60	<455	
19	Inside South Wall	<18	<205	<60	<455	
20	Inside South Wall	<18	<205	<60	<455	
21	Inside South Wall	<18	<205	<60	<455	
22	Inside South Wall	<18	<205	<60	<455	
23	Inside South Wall	<18	<205	<60	<455	
24	Inside South Wall	<18	<205	<60	<455	
25	Inside South Wall	<18	<205	<60	<455	
26	Inside South Wall	<18	<205	<60	<455	
27	Inside South Wall	<18	<205	<60	<455	
28	Inside South Wall	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSnear Result (dpm/100 cm ²)	Beta Snear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
29	Inside North Wall	<18	<205	<60	<455	
30	Inside North Wall	<18	<205	<60	<455	
31	Inside North Wall	<18	<205	<60	<455	
32	Inside North Wall	<18	<205	<60	<455	
33	Inside North Wall	<18	<205	<60	<455	
34	Inside North Wall	<18	<205	<60	<455	
35	Inside North Wall	<18	<205	<60	<455	
36	Inside South Wall	<18	<205	<60	<455	
37	Inside South Wall	<18	<205	<60	<455	
38	Inside South Wall	<18	<205	<60	<455	
39	Inside South Wall	<18	<205	<60	<455	
40	Inside South Wall	<18	<205	<60	<455	
41	Inside South Wall	<18	<205	<60	<455	
42	Inside South Wall	<18	<205	<60	<455	
43	Inside South Wall	<18	<205	<60	<455	
44	Inside South Wall	<18	<205	<60	<455	
45	Inside South Wall	<18	<205	<60	<455	
46	Inside South Wall	<18	<205	<60	<455	
47	Inside South Wall	<18	<205	<60	<455	
48	Inside South Wall	<18	<205	<60	<455	
49	Inside South Wall	<18	<205	<60	<455	
50	Inside South Wall	<18	<205	<60	<455	
51	Inside South Wall	<18	<205	<60	<455	
52	Inside South Wall	<18	<205	<60	<455	
53	Inside South Wall	<18	<205	<60	<455	
54	Inside South Wall	<18	<205	<60	<455	
55	Inside South Wall	<18	<205	<60	<455	
56	Inside South Wall	<18	<205	<60	<455	
57	Inside South Wall	<18	<205	<60	<455	
58	Inside South Wall	<18	<205	<60	<455	
59	Inside South Wall	<18	<205	<60	<455	
60	Inside South Wall	<18	<205	<60	<455	
61	Inside South Wall	<18	<205	<60	<455	
62	Inside South Wall	<18	<205	<60	<455	
63	Inside South Wall	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
64	Inside North Wall	<18	<205	<60	<455	
65	Inside North Wall	<18	<205	<60	<455	
66	Inside North Wall	<18	<205	<60	<455	
67	Inside North Wall	<18	<205	<60	<455	
68	Inside North Wall	<18	<205	<60	<455	
69	Inside North Wall	<18	<205	<60	<455	
70	Inside North Wall	<18	<205	<60	<455	
71	Inside South Wall	<18	<205	<60	<455	
72	Inside South Wall	<18	<205	<60	<455	
73	Inside South Wall	<18	<205	<60	<455	
74	Inside South Wall	<18	<205	<60	<455	
75	Inside South Wall	<18	<205	<60	<455	
76	Inside South Wall	<18	<205	<60	<455	
77	Inside South Wall	<18	<205	<60	<455	
78	Inside South Wall	<18	<205	<60	<455	
79	Inside South Wall	<18	<205	<60	<455	
80	Inside South Wall	<18	<205	<60	<455	
81	Inside South Wall	<18	<205	<60	<455	
82	Inside South Wall	<18	<205	<60	<455	
83	Inside South Wall	<18	<205	<60	<455	
84	Inside South Wall	<18	<205	<60	<455	
85	Inside South Wall	<18	<205	<60	<455	
86	Inside South Wall	<18	<205	<60	<455	
87	Inside South Wall	<18	<205	<60	<455	
88	Inside South Wall	<18	<205	<60	<455	
89	Inside South Wall	<18	<205	<60	<455	
90	Inside South Wall	<18	<205	<60	<455	
91	Inside South Wall	<18	<205	<60	<455	
92	Inside South Wall	<18	<205	<60	<455	
93	Inside South Wall	<18	<205	<60	<455	
94	Inside South Wall	<18	<205	<60	<455	
95	Inside South Wall	<18	<205	<60	<455	
96	Inside South Wall	<18	<205	<60	<455	
97	Inside South Wall	<18	<205	<60	<455	
98	Inside South Wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 30 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
99	Inside North Wall	<18	<205	<60	<455	
100	Inside North Wall	<18	<205	<60	<455	
101	Inside North Wall	<18	<205	<60	<455	
102	Inside North Wall	<18	<205	<60	<455	
103	Inside North Wall	<18	<205	<60	<455	
104	Inside North Wall	<18	<205	<60	<455	
105	Inside North Wall	<18	<205	<60	<455	
106	Inside South Wall	<18	<205	<60	<455	
107	Inside South Wall	<18	<205	<60	<455	
1	Inside East Wall	<18	<205	<60	<455	
2	Inside East Wall	<18	<205	<60	480	
3	Inside East Wall	<18	<205	<60	570	
4	Inside East Wall	<18	<205	<60	519	
5	Inside East Wall	<18	<205	<60	<455	
6	Inside East Wall	<18	<205	<60	<455	
7	Inside East Wall	<18	<205	<60	<455	
8	Inside East Wall	<18	<205	<60	1056	
9	Inside East Wall	<18	<205	<60	750	
10	Inside East Wall	<18	<205	<60	570	
11	Inside East Wall	<18	<205	<60	621	
12	Inside East Wall	<18	<205	<60	660	
13	Inside East Wall	<18	<205	<60	<455	
14	Inside East Wall	<18	<205	<60	<455	
15	Inside East Wall	<18	<205	<60	462	
16	Inside East Wall	<18	<205	<60	<455	
17	Inside East Wall	<18	<205	<60	<455	
18	Inside East Wall	<18	<205	<60	<455	
19	Inside East Wall	<18	<205	<60	<455	
20	Inside East Wall	<18	<205	<60	<455	
21	Inside East Wall	<18	<205	<60	<455	
22	Inside East Wall	<18	<205	<60	<455	
23	Inside East Wall	<18	<205	<60	<455	
24	Inside East Wall	<18	<205	<60	<455	
25	Inside East Wall	<18	<205	<60	<455	
26	Inside East Wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 31 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
27	Inside East Wall	<18	<205	<60	<455	
28	Inside East Wall	<18	<205	<60	<455	
29	Inside East Wall	<18	<205	<60	<455	
30	Inside East Wall	<18	<205	<60	<455	
31	Inside East Wall	<18	<205	60	<455	
32	Inside East Wall	<18	<205	<60	<455	
33	Inside East Wall	<18	<205	<60	<455	
34	Inside East Wall	<18	<205	<60	<455	
35	Inside East Wall	<18	<205	<60	<455	
36	Inside East Wall	<18	<205	<60	<455	
37	Inside East Wall	<18	<205	<60	<455	
38	Inside East Wall	<18	<205	<60	<455	
39	Inside East Wall	<18	<205	<60	<455	
40	Inside East Wall	<18	<205	<60	<455	
41	Inside East Wall	<18	<205	<60	<455	
42	Inside East Wall	<18	<205	<60	<455	
43	Inside East Wall	<18	<205	<60	<455	
44	Inside East Wall	<18	<205	<60	<455	
45	Inside East Wall	<18	<205	<60	<455	
46	Inside East Wall	<18	<205	<60	<455	
47	Inside East Wall	<18	<205	<60	<455	
48	Inside East Wall	<18	<205	<60	<455	
49	Inside East Wall	<18	<205	<60	<455	
50	Inside East Wall	<18	<205	<60	<455	
51	Inside East Wall	<18	<205	<60	<455	
52	Inside East Wall	<18	<205	<60	<455	
53	Inside East Wall	<18	<205	<60	<455	
54	Inside East Wall	<18	<205	<60	<455	
55	Inside East Wall	<18	<205	<60	<455	
56	Inside East Wall	<18	<205	<60	<455	
57	Inside East Wall	<18	<205	<60	<455	
58	Inside East Wall	<18	<205	<60	<455	
59	Inside East Wall	<18	<205	<60	<455	
60	Inside East Wall	<18	<205	<60	<455	
61	Inside East Wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 32 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	OutsideWalls of Office	<18	<205	<60	<455	
2	OutsideWalls of Office	<18	<205	<60	<455	
3	OutsideWalls of Office	<18	<205	<60	<455	
4	OutsideWalls of Office	<18	<205	<60	<455	
5	OutsideWalls of Office	<18	<205	60	<455	
6	OutsideWalls of Office	<18	<205	<60	<455	
7	OutsideWalls of Office	<18	<205	<60	<455	
8	OutsideWalls of Office	<18	<205	<60	<455	
9	OutsideWalls of Office	<18	<205	<60	<455	
10	OutsideWalls of Office	<18	<205	<60	<455	
11	OutsideWalls of Office	<18	<205	<60	<455	
12	OutsideWalls of Office	<18	<205	<60	<455	
13	OutsideWalls of Office	<18	<205	<60	<455	
14	OutsideWalls of Office	<18	<205	<60	<455	
15	OutsideWalls of Office	<18	<205	<60	<455	
16	OutsideWalls of Office	<18	<205	<60	<455	
17	OutsideWalls of Office	<18	<205	<60	<455	
18	OutsideWalls of Office	<18	<205	<60	<455	
19	OutsideWalls of Office	<18	<205	<60	<455	
20	OutsideWalls of Office	<18	<205	<60	<455	
21	OutsideWalls of Office	<18	<205	<60	<455	
22	OutsideWalls of Office	<18	<205	<60	<455	
23	OutsideWalls of Office	<18	<205	<60	<455	
24	OutsideWalls of Office	<18	<205	<60	<455	
25	OutsideWalls of Office	<18	<205	<60	<455	
26	OutsideWalls of Office	<18	<205	<60	<455	
1	West Wall	<18	<205	<60	<455	
2	West Wall	<18	<205	<60	<455	
9	West Wall	<18	<205	<60	<455	
4	West Wall	<18	<205	<60	<455	
5	West Wall	<18	<205	<60	<455	
6	West Wall	<18	<205	<60	<455	
7	West Wall	<18	<205	<60	<455	
8	West Wall	<18	<205	<60	<455	
9	West Wall	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
10	West Wall	<18	<205	<60	<455	
11	West Wall	<18	<205	<60	<455	
12	West Wall	<18	<205	<60	<455	
13	West Wall	<18	<205	<60	<455	
14	West Wall	<18	<205	60	<455	
15	West Wall	<18	<205	<60	<455	
16	West Wall	<18	<205	<60	<455	
17	West Wall	<18	<205	<60	<455	
18	West Wall	<18	<205	<60	<455	
19	West Wall	<18	<205	<60	<455	
20	West Wall	<18	<205	<60	<455	
21	West Wall	<18	<205	<60	<455	
22	West Wall	<18	<205	<60	<455	
23	West Wall	<18	<205	<60	<455	
24	West Wall	<18	<205	<60	<455	
25	West Wall	<18	<205	<60	<455	
26	West Wall	<18	<205	<60	<455	
27	West Wall	<18	<205	<60	<455	
28	West Wall	<18	<205	<60	<455	
29	West Wall	<18	<205	<60	<455	
30	West Wall	<18	<205	<60	<455	
31	West Wall	<18	<205	<60	<455	
32	West Wall	<18	<205	<60	<455	
33	West Wall	<18	<205	<60	<455	
34	West Wall	<18	<205	<60	<455	
35	West Wall	<18	<205	<60	<455	
36	West Wall	<18	<205	<60	<455	
37	West Wall	<18	<205	<60	<455	
38	West Wall	<18	<205	<60	<455	
39	West Wall	<18	<205	<60	<455	
40	West Wall	<18	<205	<60	<455	
41	West Wall	<18	<205	<60	<455	
42	West Wall	<18	<205	<60	<455	
43	West Wall	<18	<205	<60	<455	
44	West Wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 34 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
45	West Wall	<18	<205	<60	<455	
46	West Wall	<18	<205	<60	<455	
1	Inside Walls of Office	<18	<205	<60	<455	
2	Inside Walls of Office	<18	<205	<60	<455	
3	Inside Walls of Office	<18	<205	60	<455	
4	Inside Walls of Office	<18	<205	<60	<455	
5	Inside Walls of Office	<18	<205	<60	<455	
6	Inside Walls of Office	<18	<205	<60	<455	
7	Inside Walls of Office	<18	<205	<60	<455	
8	Inside Walls of Office	<18	<205	<60	<455	
9	Inside Walls of Office	<18	<205	<60	<455	
10	Inside Walls of Office	<18	<205	<60	<455	
11	Inside Walls of Office	<18	<205	<60	<455	
12	Inside Walls of Office	<18	<205	<60	<455	
13	Inside Walls of Office	<18	<205	<60	<455	
14	Inside Walls of Office	<18	<205	<60	<455	
15	Inside Walls of Office	<18	<205	<60	<455	
16	Inside Walls of Office	<18	<205	<60	<455	
17	Inside Walls of Office	<18	<205	<60	<455	
18	Inside Walls of Office	<18	<205	<60	<455	
19	Inside Walls of Office	<18	<205	<60	<455	
20	Inside Walls of Office	<18	<205	<60	<455	
21	Inside Walls of Office	<18	<205	<60	<455	
22	Inside Walls of Office	<18	<205	<60	<455	
23	Inside Walls of Office	<18	<205	<60	<455	
24	Inside Walls of Office	<18	<205	<60	<455	
25	Inside Walls of Office	<18	<205	<60	<455	
26	Inside Walls of Office	<18	<205	<60	<455	
27	Inside Walls of Office	<18	<205	<60	<455	
28	Inside Walls of Office	<18	<205	<60	<455	
29	Inside Walls of Office	<18	<205	<60	<455	
30	Inside Walls of Office	<18	<205	<60	<455	
31	Inside Walls of Office	<18	<205	<60	<455	
32	Inside Walls of Office	<18	<205	<60	<455	
33	Inside Walls of Office	<18	<205	<60	<455	

Data Summary of Interior of Building 980 (Continued)

Survey Date: 7/25/97 100% scan w/ fixed points on floor and wall surfaces Sections 6

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
34	Inside Walls of Office	<18	<205	<60	<455	
35	Inside Walls of Office	<18	<205	<60	<455	
36	Inside Walls of Office	<18	<205	<60	<455	
37	Inside Walls of Office	<18	<205	<60	<455	
38	Inside Walls of Office	<18	<205	60	<455	
39	Inside Walls of Office	<18	<205	<60	<455	
40	Inside Walls of Office	<18	<205	<60	<455	
41	Inside Walls of Office	<18	<205	<60	<455	
42	Inside Walls of Office	<18	<205	<60	<455	
43	Inside Walls of Office	<18	<205	<60	<455	
44	Inside Walls of Office	<18	<205	<60	<455	
45	Inside Walls of Office	<18	<205	<60	<455	
46	Inside Walls of Office	<18	<205	<60	<455	
47	Inside Walls of Office	<18	<205	<60	<455	
48	Inside Walls of Office	<18	<205	<60	<455	
49	Inside Walls of Office	<18	<205	<60	<455	
50	Inside Walls of Office	<18	<205	<60	<455	
51	Inside Walls of Office	<18	<205	<60	<455	

Survey Date: 8/13/97 Section 5 Investigation on floor and wall in area of elevated activity due to thorium from tungsten welding rods

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
1	Floor & Wall	<18	<205	<60	<455	
2	Floor & Wall	<18	<205	<60	680	
3	Floor & Wall	<18	<205	<60	<455	
4	Floor & Wall	<18	<205	<60	<455	
5	Floor & Wall	<18	<205	60	540	
6	Floor & Wall	<18	<205	<60	600	
7	Floor & Wall	<18	<205	<60	<455	
8	Floor & Wall	<18	<205	<60	<455	
9	Floor & Wall	<18	<205	<60	<455	
10	Floor & Wall	<18	<205	<60	<455	
11	Floor & Wall	<18	<205	<60	<455	
12	Floor & Wall	<18	<205	<60	<455	
13	Floor & Wall	<18	<205	<60	<455	
14	Floor & Wall	<18	<205	<60	<455	
15	Floor & Wall	<18	<205	<60	480	

Data Summary of Interior of Building 980 (Continued)**Survey Date: 8/13/97** Section 5 Investigation on floor and wall in area of elevated activity due to thorium from tungsten welding rods

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
16	Floor & Wall	<18	<205	636*	924*	
17	Floor & Wall	<18	<205	120*	1449*	
18	Floor & Wall	<18	<205	456*	5046*	
19	Floor & Wall	<18	<205	90	<455	
20	Floor & Wall	<18	<205	60	<455	
21	Floor & Wall	<18	<205	<60	<455	
22	Floor & Wall	<18	<205	<60	<455	
23	Floor & Wall	<18	<205	<60	<455	
24	Floor & Wall	<18	<205	<60	<455	
25	Floor & Wall	<18	<205	96	810	
26	Floor & Wall	<18	<205	<60	<455	
27	Floor & Wall	<18	<205	<60	<455	
28	Floor & Wall	<18	<205	<60	<455	
29	Floor & Wall	<18	<205	<60	<455	
30	Floor & Wall	<18	<205	<60	<455	

Survey Date: 9/11/97 Section 5 Investigation on floor and wall in area of elevated activity due to thorium from tungsten welding rods

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
1B	Floor & Wall	<18	<205	636	924*	
2B	Floor & Wall	<18	<205	120	1449*	
3B	Floor & Wall	<18	<205	456	5046*	
4B	Floor & Wall	<18	<205	90	<455	
5B	Floor & Wall	<18	<205	60	<455	
6B	Floor & Wall	<18	<205	<60	<455	
7B	Floor & Wall	<18	<205	<60	<455	
8B	Floor & Wall	<18	<205	<60	<455	
9B	Floor & Wall	<18	<205	<60	<455	
10B	Floor & Wall	<18	<205	96	810	
11B	Floor & Wall	<18	<205	<60	<455	
12B	Floor & Wall	<18	<205	<60	<455	
13B	Floor & Wall	<18	<205	<60	<455	
14B	Floor & Wall	<18	<205	<60	<455	
15B	Floor & Wall	<18	<205	<60	<455	
16B	Floor & Wall	<18	<205	<60	<455	
17B	Floor & Wall	<18	<205	<60	<455	
18B	Floor & Wall	<18	<205	<60	<455	

* Material identified as Thorium - 5,000 dpm/100 cm² average/15,000 dpm/100 cm² maximum limits apply

Data Summary of Building 980 (Continued)

Survey Date: 7/25/97 **Survey of newly exposed support beams after exterior panel removal**

Survey Location	Location/Description	AlphaSnear Result (dpm/100 cm ²)	Beta Snear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
1	North support beam	<18	<205	<60	<455	
2	North support beam	<18	<205	<60	<455	
3	North support beam	<18	<205	<60	<455	
4	North support beam	<18	<205	<60	<455	
5	North support beam	<18	<205	60	<455	
6	North support beam	<18	<205	<60	<455	
7	North support beam	<18	<205	<60	<455	
8	North support beam	<18	<205	<60	<455	
9	North support beam	<18	<205	<60	<455	
10	North support beam	<18	<205	<60	<455	
11	North support beam	<18	<205	<60	<455	
12	North support beam	<18	<205	<60	<455	
13	North support beam	<18	<205	<60	<455	
14	North support beam	<18	<205	<60	<455	
15	North support beam	<18	<205	<60	<455	
16	East support beam	<18	<205	<60	<455	
17	East support beam	<18	<205	<60	<455	
18	East support beam	<18	<205	<60	<455	
19	East support beam	<18	<205	<60	<455	
20	East support beam	<18	<205	<60	<455	
21	South support beam	<18	<205	<60	<455	
22	South support beam	<18	<205	<60	<455	
23	South support beam	<18	<205	<60	<455	
24	South support beam	<18	<205	<60	<455	
25	South support beam	<18	<205	<60	<455	
26	Survey point not used	N/A	N/A	N/A	N/A	
27	South support beam	<18	<205	<60	<455	
28	South support beam	<18	<205	<60	<455	
29	South support beam	<18	<205	<60	<455	
30	South support beam	<18	<205	<60	<455	
31	South support beam	<18	<205	<60	<455	
32	South support beam	<18	<205	<60	<455	
33	South support beam	<18	<205	<60	<455	
34	South support beam	<18	<205	<60	<455	
35	South support beam	<18	<205	<60	<455	

Data Summary of Building 980 (Continued)

Survey Date: 7/25/97 Survey of newly exposed support beams after exterior panel removal

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
36	South support beam	<18	<205	<60	<455	
37	South support beam	<18	<205	<60	<455	
38	West support beam	<18	<205	<60	<455	
39	West support beam	<18	<205	<60	<455	
40	West support beam	<18	<205	60	<455	
41	West support beam	<18	<205	<60	<455	
42	West support beam	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 39 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 968

Survey Date: 9/8/97 Floor and wall surfaces - Section 1

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Section 1 north wall	<18	<205	<60	<455	
2	Section 1 north wall	<18	<205	<60	<455	
3	Section 1 north wall	<18	<205	<60	<455	
4	Section 1 north wall	<18	<205	<60	<455	
5	Section 1 north wall	<18	<205	<60	<455	
6	Section 1 north wall	<18	<205	<60	<455	
7	Section 1 north wall	<18	<205	<60	<455	
8	Section 1 north wall	<18	<205	<60	<455	
1	Section 1 west wall	<18	<205	<60	<455	
2	Section 1 west wall	<18	<205	<60	<455	
1	Section 1 east wall	<18	<205	<60	<455	
2	Section 1 east wall	<18	<205	<60	<455	
1	Section 1 south wall	<18	<205	<60	<455	
2	Section 1 south wall	<18	<205	<60	<455	
3	Section 1 south wall	<18	<205	<60	<455	
4	Section 1 south wall	<18	<205	<60	<455	
5	Section 1 south wall	<18	<205	<60	<455	
6	Section 1 south wall	<18	<205	<60	<455	
7	Section 1 south wall	<18	<205	<60	<455	
1	Restroom floor	<18	<205	<60	<455	
2	Restroom wall	<18	<205	<60	<455	
3	Restroom wall	<18	<205	<60	<455	
4	Restroom wall	<18	<205	<60	<455	
5	Restroom wall	<18	<205	<60	<455	
1	East office wall	<18	<205	<60	<455	
2	East office wall	<18	<205	<60	<455	
3	East office wall	<18	<205	<60	<455	
4	East office wall	<18	<205	<60	<455	
5	East office floor	<18	<205	<60	<455	
1	West office wall	<18	<205	<60	<455	
2	West office wall	<18	<205	<60	<455	
3	West office wall	<18	<205	<60	<455	
4	West office wall	<18	<205	<60	<455	
5	West office floor	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 40 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 968 (Continued)

Survey Date: 9/8/97 Ceiling surfaces - Section 1

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Section 1 ceiling	<18	<205	<60	<455	
2	Section 1 ceiling	<18	<205	<60	<455	
3	Section 1 ceiling	<18	<205	<60	<455	
4	Section 1 ceiling	<18	<205	<60	<455	
5	Section 1 ceiling	<18	<205	60	<455	
6	Section 1 ceiling	<18	<205	<60	<455	
7	Section 1 ceiling	<18	<205	<60	<455	
8	Section 1 ceiling	<18	<205	<60	<455	
9	Section 1 ceiling	<18	<205	<60	<455	
10	Section 1 ceiling	<18	<205	<60	<455	
11	Section 1 ceiling	<18	<205	<60	<455	
12	Section 1 ceiling	<18	<205	<60	<455	
13	Section 1 ceiling	<18	<205	<60	<455	
14	Section 1 ceiling	<18	<205	<60	<455	
15	Section 1 ceiling	<18	<205	<60	<455	
16	Section 1 ceiling	<18	<205	<60	<455	
1	Section 1 floor	<18	<205	<60	<455	
2	Section 1 floor	<18	<205	<60	<455	
3	Section 1 floor	<18	<205	<60	<455	
4	Section 1 floor	<18	<205	<60	<455	
5	Section 1 floor	<18	<205	<60	<455	
6	Section 1 floor	<18	<205	<60	<455	
7	Section 1 floor	<18	<205	<60	<455	
8	Section 1 floor	<18	<205	<60	<455	
9	Section 1 floor	<18	<205	<60	<455	
10	Section 1 floor	<18	<205	<60	<455	
11	Section 1 floor	<18	<205	<60	<455	
12	Section 1 floor	<18	<205	<60	<455	
13	Section 1 floor	<18	<205	<60	<455	
14	Section 1 floor	<18	<205	<60	<455	
15	Section 1 floor	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 41 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 968 (Continued)

Survey Date: 9/8/97 Floor and wall surfaces - Section 2

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Section 2 North wall	<18	<205	<60	<455	
2	Section 2 North wall	<18	<205	<60	<455	
3	Section 2 North wall	<18	<205	<60	<455	
4	Section 2 North wall	<18	<205	<60	<455	
5	Section 2 North wall	<18	<205	60	<455	
6	Section 2 North wall	<18	<205	<60	<455	
7	Section 2 North wall	<18	<205	<60	<455	
8	Section 2 North wall	<18	<205	<60	<455	
9	Section 2 North wall	<18	<205	<60	<455	
10	Section 2 North wall	<18	<205	<60	<455	
11	Section 2 North wall	<18	<205	<60	<455	
12	Section 2 North wall	<18	<205	<60	<455	
13	Section 2 North wall	<18	<205	<60	<455	
14	Section 2 North wall	<18	<205	<60	<455	
15	Section 2 North wall	<18	<205	<60	<455	
16	Section 2 North wall	<18	<205	<60	<455	
17	Section 2 North wall	<18	<205	<60	<455	
18	Section 2 North wall	<18	<205	<60	<455	
19	Section 2 North wall	<18	<205	<60	<455	
20	Section 2 North wall	<18	<205	<60	<455	
21	Section 2 North wall	<18	<205	<60	<455	
22	Section 2 North wall	<18	<205	60	<455	
23	Section 2 North wall	<18	<205	<60	<455	
24	Section 2 North wall	<18	<205	<60	<455	
25	Section 2 North wall	<18	<205	<60	<455	
26	Section 2 North wall	<18	<205	<60	<455	
27	Section 2 North wall	<18	<205	<60	<455	
28	Section 2 North wall	<18	<205	<60	<455	
29	Section 2 North wall	<18	<205	<60	<455	
30	Section 2 North wall	<18	<205	<60	<455	
31	Section 2 North wall	<18	<205	<60	<455	
32	Section 2 North wall	<18	<205	<60	<455	
33	Section 2 North wall	<18	<205	<60	<455	
34	Section 2 North wall	<18	<205	<60	<455	
35	Section 2 North wall	<18	<205	<60	<455	
36	Section 2 North wall	<18	<205	<60	<455	
37	Section 2 North wall	<18	<205	<60	<455	
38	Section 2 North wall	<18	<205	<60	<455	
39	Section 2 North wall	<18	<205	<60	<455	
40	Section 2 North wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 42 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 968 (Continued)

Survey Date: 9/8/97 Floor and wall surfaces - Section 2

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
41	Section 2 North wall	<18	<205	<60	<455	
42	Section 2 North wall	<18	<205	<60	<455	
43	Section 2 North wall	<18	<205	<60	<455	
44	Section 2 North wall	<18	<205	<60	<455	
45	Section 2 North wall	<18	<205	<60	<455	
46	Section 2 North wall	<18	<205	<60	<455	
47	Section 2 North wall	<18	<205	<60	<455	
48	Section 2 North wall	<18	<205	<60	<455	
49	Section 2 North wall	<18	<205	<60	<455	
50	Section 2 North wall	<18	<205	<60	<455	
51	Section 2 North wall	<18	<205	<60	<455	
52	Section 2 North wall	<18	<205	<60	<455	
53	Section 2 North wall	<18	<205	<60	<455	
54	Section 2 North wall	<18	<205	<60	<455	
55	Section 2 North wall	<18	<205	<60	<455	
56	Section 2 North wall	<18	<205	<60	<455	
57	Section 2 North wall	<18	<205	<60	<455	
58	Section 2 North wall	<18	<205	<60	<455	
59	Section 2 North wall	<18	<205	<60	<455	
60	Section 2 North wall	<18	<205	<60	<455	
61	Section 2 North wall	<18	<205	<60	<455	
62	Section 2 North wall	<18	<205	<60	<455	
63	Section 2 North wall	<18	<205	<60	<455	
64	Section 2 North wall	<18	<205	<60	<455	
65	Section 2 North wall	<18	<205	<60	<455	
66	Section 2 North wall	<18	<205	<60	<455	
67	Section 2 North wall	<18	<205	<60	<455	
68	Section 2 North wall	<18	<205	<60	<455	
69	Section 2 North wall	<18	<205	<60	<455	
70	Section 2 North wall	<18	<205	<60	<455	
71	Section 2 North wall	<18	<205	<60	<455	
72	Section 2 North wall	<18	<205	<60	<455	
73	Section 2 North wall	<18	<205	<60	<455	
74	Section 2 North wall	<18	<205	<60	<455	
75	Section 2 North wall	<18	<205	<60	<455	
76	Section 2 North wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 43 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 968 (Continued)

Survey Date: 9/8/97 Floor and wall surfaces - Section 2

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
77	Section 2 North wall	<18	<205	<60	<455	
78	Section 2 North wall	<18	<205	<60	<455	
79	Section 2 North wall	<18	<205	<60	<455	
80	Section 2 North wall	<18	<205	<60	<455	
81	Section 2 North wall	<18	<205	<60	<455	
82	Section 2 North wall	<18	<205	<60	<455	
83	Section 2 North wall	<18	<205	<60	<455	
84	Section 2 North wall	<18	<205	<60	<455	
85	Section 2 North wall	<18	<205	<60	<455	
86	Section 2 North wall	<18	<205	<60	<455	
87	Section 2 North wall	<18	<205	<60	<455	
88	Section 2 North wall	<18	<205	<60	<455	
89	Section 2 North wall	<18	<205	<60	<455	
90	Section 2 North wall	<18	<205	<60	<455	
91	Section 2 North wall	<18	<205	<60	<455	
92	Section 2 North wall	<18	<205	<60	<455	
93	Section 2 North wall	<18	<205	<60	<455	
94	Section 2 North wall	<18	<205	<60	<455	
95	Section 2 North wall	<18	<205	<60	<455	
96	Section 2 North wall	<18	<205	<60	<455	
97	Section 2 North wall	<18	<205	<60	<455	
98	Section 2 North wall	<18	<205	<60	<455	
99	Section 2 North wall	<18	<205	<60	<455	
100	Section 2 North wall	<18	<205	<60	<455	
101	Section 2 North wall	<18	<205	<60	<455	
102	Section 2 North wall	<18	<205	<60	<455	
103	Section 2 North wall	<18	<205	<60	<455	
104	Section 2 North wall	<18	<205	<60	<455	
105	Section 2 North wall	<18	<205	<60	<455	
106	Section 2 North wall	<18	<205	<60	<455	
107	Section 2 North wall	<18	<205	<60	<455	
108	Section 2 North wall	<18	<205	<60	<455	
109	Section 2 North wall	<18	<205	<60	<455	
110	Section 2 North wall	<18	<205	<60	<455	
111	Section 2 North wall	<18	<205	<60	<455	
112	Section 2 North wall	<18	<205	<60	<455	
113	Section 2 North wall	<18	<205	<60	<455	
114	Section 2 North wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 44 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 968 (Continued)

Survey Date: 9/8/97 Floor and wall surfaces - Section 2

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
115	Section 2 North wall	<18	<205	<60	<455	
116	Section 2 North wall	<18	<205	<60	<455	
117	Section 2 North wall	<18	<205	<60	<455	
118	Section 2 North wall	<18	<205	<60	<455	
119	Section 2 North wall	<18	<205	<60	<455	
120	Section 2 North wall	<18	<205	<60	<455	
121	Section 2 North wall	<18	<205	<60	<455	
122	Section 2 North wall	<18	<205	<60	<455	
123	Section 2 North wall	<18	<205	<60	<455	
124	Section 2 North wall	<18	<205	<60	<455	
1	Section 2 East wall	<18	<205	<60	<455	
2	Section 2 East wall	<18	<205	<60	<455	
1	Section 2 South wall	<18	<205	<60	<455	
2	Section 2 South wall	<18	<205	<60	<455	
3	Section 2 South wall	<18	<205	<60	<455	
4	Section 2 South wall	<18	<205	<60	<455	
5	Section 2 South wall	<18	<205	<60	<455	
1	Section 2 Floor	<18	<205	<60	<455	
2	Section 2 Floor	<18	<205	<60	<455	
3	Section 2 Floor	<18	<205	<60	<455	
4	Section 2 Floor	<18	<205	<60	<455	
5	Section 2 Floor	<18	<205	<60	<455	
6	Section 2 Floor	<18	<205	<60	<455	
7	Section 2 Floor	<18	<205	<60	<455	
8	Section 2 Floor	<18	<205	<60	<455	
9	Section 2 Floor	<18	<205	<60	<455	
10	Section 2 Floor	<18	<205	<60	<455	
1	Section 2 Ceiling	<18	<205	<60	<455	
2	Section 2 Ceiling	<18	<205	<60	<455	
3	Section 2 Ceiling	<18	<205	<60	<455	
4	Section 2 Ceiling	<18	<205	<60	<455	
5	Section 2 Ceiling	<18	<205	<60	<455	
6	Section 2 Ceiling	<18	<205	<60	<455	
7	Section 2 Ceiling	<18	<205	<60	<455	
8	Section 2 Ceiling	<18	<205	<60	<455	
9	Section 2 Ceiling	<18	<205	<60	<455	
10	Section 2 Ceiling	<18	<205	<60	<455	
1	Section 2 West wall	<18	<205	<60	<455	
2	Section 2 West wall	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 45 of C-48
Date Effective: 10/9/97

Data Summary of Interior of Building 968 (Continued)

Survey Date: 9/12/97 Equipment - Section 1 and 2

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	Heater	<18	<205	<60	<455	
2	Light	<18	<205	<60	<455	
3	Fire Line	<18	<205	<60	<455	
4	Light	<18	<205	<60	<455	
5	Beam	<18	<205	60	<455	
6	Heater	<18	<205	<60	<455	
7	Beam	<18	<205	<60	<455	
8	Heater	<18	<205	<60	<455	
9	Beam	<18	<205	<60	<455	
10	Pipe	<18	<205	<60	<455	
11	Light	<18	<205	<60	<455	
12	Pipe	<18	<205	<60	<455	
13	Pipe	<18	<205	<60	<455	
14	Beam	<18	<205	<60	<455	
15	Electrical panel	<18	<205	<60	<455	
16	Pipe	<18	<205	<60	<455	
17	Light	<18	<205	<60	<455	
18	Pipe	<18	<205	<60	<455	
19	Heater	<18	<205	<60	<455	
20	Heater	<18	<205	<60	<455	
21	Light	<18	<205	<60	<455	
22	Heater	<18	<205	<60	<455	
23	Light	<18	<205	<60	<455	
24	Light	<18	<205	<60	<455	
25	Beam	<18	<205	<60	<455	
26	Heater	<18	<205	<60	<455	
27	Electrical panel	<18	<205	<60	<455	
28	Fire water valves	<18	<205	<60	<455	
29	Heater duct	<18	<205	<60	<455	
30	Heater duct	<18	<205	<60	<455	

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 46 of C-48
Date Effective: 10/9/97

Data Summary of Building 968 (Continued)

Survey Date: 9/24/97 Survey of newly exposed support beams after exterior panel removal

Survey Location	Location/Description	AlphaSmear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (if required)
1	North support beam	<18	<205	<60	<455	
2	North support beam	<18	<205	<60	<455	
3	North support beam	<18	<205	<60	<455	
4	North support beam	<18	<205	66	<455	
5	North support beam	<18	<205	60	<455	
6	North support beam	<18	<205	<60	<455	
7	North support beam	<18	<205	72	<455	
8	East support beam	<18	<205	<60	<455	
9	East support beam	<18	<205	<60	<455	
10	South support beam	<18	<205	<60	<455	
11	South support beam	<18	<205	<60	<455	
12	South support beam	<18	<205	<60	<455	
13	South support beam	<18	<205	<60	<455	
14	South support beam	<18	<205	<60	<455	
15	West support beam	<18	<205	<60	<455	
16	West support beam	<18	<205	<60	<455	
17	North support beam	<18	<205	132*	<455	
18	North support beam	<18	<205	126*	<455	
19	North support beam	<18	<205	210*	<455	
20	North support beam	<18	<205	108*	<455	
21	North support beam	<18	<205	<60	<455	
22	North support beam	<18	<205	144*	<455	
23	East support beam	<18	<205	<60	<455	
24	East support beam	<18	<205	<60	<455	
25	East support beam	<18	<205	72	<455	
26	South support beam	<18	<205	<60	<455	
27	South support beam	<18	<205	<60	<455	
28	South support beam	<18	<205	<60	<455	
29	South support beam	<18	<205	<60	<455	
30	South support beam	<18	<205	<60	<455	
31	South support beam	<18	<205	<60	<455	
32	West support beam	<18	<205	86	<455	
33	West support beam	<18	<205	132*	<455	
34	West support beam	<18	<205	96	<455	

* Recounts performed to verify radon activity caused elevated fixed alpha values. All elevated survey points for alpha decreased to < 100 dpm/100 cm²

CLOSE-OUT REPORT
FOR THE BUILDING 980 CLUSTER

RF/RMRS-97-095.UN
Rev. 0, Page C- 47 of C-48
Date Effective: 10/9/97

Data Summary of Building 968 (Continued)

Survey Date: 7/25/97 **Survey of newly exposed support beams after exterior panel removal**

Survey Location	Location/Description	Alpha Smear Result (dpm/100 cm ²)	Beta Smear Result (dpm/100 cm ²)	Fixed Alpha Result (dpm/100 cm ²)	Fixed Beta Result (dpm/100 cm ²)	Independent Verification (If required)
17B	2nd measurement on North support beam	<18	<205	90	<455	
18B	2nd measurement on North support beam	<18	<205	126*	<455	
18C	3rd measurement on North support beam	<18	<205	78	<455	
19B	2nd measurement on North support beam	<18	<205	132*	<455	
19C	3rd measurement on North support beam	<18	<205	114*	<455	
19D	4th measurement on North support beam	<18	<205	78	<455	
22B	2nd measurement on North support beam	<18	<205	138*	<455	
22C	3rd measurement on North support beam	<18	<205	96	<455	
33B	2nd measurement on West support beam	<18	<205	102	<455	
33C	3rd measurement on North support beam	<18	<205	<60	<455	

* Recounts performed to verify radon activity caused elevated fixed alpha values. All elevated survey points for alpha decreased to < 100 dpm/100 cm²

THIS PAGE HAS BEEN LEFT

INTENTIONALLY BLANK